

JOURNAL OF THE CHARTERED INSURANCE INSTITUTE

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LINIVERSITY OF LLINOIS

JOURNAL

1915.

PRICE SIX SHILLINGS NETT.

Published by

CHARLES & EDWIN LAYTON, Farringdon Street, London, E.C.;

and Printed for the Institute by

James Hedderwick & Sons Limited,

24 St. Vincent Place, Glasgow.

1915.

[Entered at Stationers' Hall.]

UNIVERSITY OF REMOKS

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(THE YEAR OF ELECTION IS SHOWN AFTER THE NAME.)

Name.	Institute.	Name.	Institute.
Charles Alcock (1913),		David L. Laidlaw (1913),	Glasgow.
Frank Dalton (1913),	 Birmingham.	Stewart Lawrie (1913),	Glasgow.
J. P. Eddison (1913),	 Yorkshire.	J. B. Roberts (1913), .	Yorkshire.
W. Holbrook (1913),	 Yorkshire.	A. W. Sneath (1913), .	Yorkshire.

LIST OF FELLOWS.

ABEL, William P. (1912), . Norwich. Addenbrooke, Edward (1912), Alderoft, William H. (1912), . Liverpool. Allan, James (1912), . Liverpool. Allen, Arthur G. (1912), . London. Allen, Frederick J. (1912), . Yorkshire. Allen, John Sandeman (1912), . Liverpool. Anderson, David G. (1912), . Edinburgh. Andersson, William H. Liverpool. (1912). Andrews, Ernest George (1912), Aberdeen. Angus, George A. (1912), . Aberdeen. Ansell, John William (1912), Nottingham Astey, Graham A. (1912), Nottingham Arding, Herbert C. (1912),	Baillie, Robert R. (1912),
Aylward, J. Harold (1912), . Ireland.	Bennett, Amed James (1912), \(\) and Bedford

Name. Institute.	Name. Institute.
Bennett, Sydney Alfred (1912), London.	Brown, Charles Lawson (1912), Yorkshire.
Bewley, John A. (1912), Liverpool.	Brown, Henry (1912), Edinburgh.
	Brown, John Foster K. (1912), Manchester.
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Bigham, William J. (1912), . Manchester.	Brown, Michael (1912), Liverpool.
Bigland, Leonard F. (1912), Liverpool.	Brown, Robert (1912), London.
Bingham, Frank (1912), Yorkshire.	Brown, Thomas (1912), . Yorkshire.
Bingham, Harry (1912), Liverpool.	Browning, Albert Q. (1912), Brighton.
Bingham-Hall, Thomas B. Bristol.	Buchanan, Fred. K. (1913), . Glasgow.
(1912).	Burne, Charles F. (1912), Liverpool.
Birks, Edmund Alfred (1912), Yorkshire.	Burnett, George Henry (1912), London.
Bisset, James S. P. (1912), . Edinburgh.	Butler, Edward L. (1912), . London.
Black, James (1912), . Belfast.	
Black, Robert (1912), London.	
Blair, William (1912), . Bristol.	
Blake, Ernest (1912), London.	CALDER, Alexander S. (1912), Perth.
Blake, W. Ernest (1912), . London.	Cameron, Daniel M. (1912), . Edinburgh.
Bland, George M. (1912), . Manchester.	(Newgestle
Blandford, Joseph R. (1912), Bristol.	Campbell, David C. (1912), . Two castles on-Tyne.
Blazeby, William T. (1912), Norwich.	Campbell, John (1912), Glasgow.
Blizard, George P. (1914), . London.	Campbell, Robert G. (1912), Glasgow.
Blood, Henry B. (1912), . Ireland.	Campbell, W. Philpot (1912), Ireland.
Plant II hart B (1010) (Newcastle-	Carphin, Patrick B. (1912), . Ireland.
Blunt, Herbert P. (1912), . { non-Tyne.	Carr, Bertram A. (1912), Cardiff.
Boag, David (1912), . Brighton.	Carter, Walter (1912), Liverpool.
Bolderston, Stanley H. (1912), Manchester.	Caudle, Percy James (1912), Manchester.
Bolton, James (1912), . Bristol.	Chapman, John H. (1912), . Manchester.
Bongard, James L. (1912), . London.	Chapman, Robert (1912), . Edinburgh.
Boocock, J. Headon (1912), . Birmingham.	Chapman, Thomas S. (1912), Nottingham.
Booty, Horace Charles (1912), Norwich.	Chappell, George (1912), Liverpool.
Borland, William A. (1912), Yorkshire.	Chatterton, Bertram (1912), London.
Boston, Edward Arthur (1912), London.	(Nowgootle
Boston, Francis Walter (1912), London.	Clark, Gilbert J. M. (1912), { New Castles on Tyne.
Bradley, Ernest G. (1912), . Birmingham.	Clark, W. Lawson (1912), Dundee.
Braidwood, John S. (1912), . Dundee.	Clarke, James Thomas (1912), Manchester.
Breen, William Weir (1912), Edinburgh.	Clayton, Ashley E. (1912), London.
Brenan, Charles F. (1912), . Manchester.	Clegg, William E. (1912), Yorkshire.
Bridgford, Louis (1912), . Manchester.	Clunes, James (1912), London.
Briscoe, Harold P. (1912), . Manchester.	Clutterbuck, Ernest E. (1912), Glasgow.
(Normonatle	Clydesdale, Alexander Muir Glasgow.
on-Tyne.	(1912).
Britton, Edgar (1912), London.	Clymer, J. Nicholas (1912), . Manchester.
Brodbelt, Thos. W. B. (1914), Liverpool.	Coats, Junr., William (1912), { Newcastle-
Brodie, William P. Wilson Edinburgh.	(on-1) nc.
(1912).	Cockburn, Arthur Cecil (1912), London.
Brooke, Ernest (1912), Birmingham.	Coe, Harold G. (1914), . Manchester.
Brookes, Albert D. (1912), . Bristol.	Colam, Stanley d'E. (1912), . Edinburgh.
Brotherton, Herbert (1912), Liverpool.	Coldwell, Frederick W. (1912), London.
Brown, Arthur D. K. (1912), Cardiff.	Cole, Richard Charles (1912), Norwich.

Name.	Institute.	Name.	Institute.
Colley, Joseph H. (1912), .	Newcastle- on-Tyne.	Dick, Douglas (1912),	Newcastle- on-Tyne.
Collins, E. Tenison (1912), .	Ireland.	Dickson, Leonard W. (1912),	Edinburgh.
Condie, Morris (1912),	London.	Dixon, John G. (1912),	Ireland.
Cook, James Allan (1912), .	Edinburgh.	Dixon, Robert A. (1912), .	Yorkshire.
Cooke, Francis Beaumont	London.	Dodd, John (1912),	Yorkshire.
(1912).		Dougharty, Harold (1912), .	London.
Cooke, Frederick C. (1912), .	Yorkshire.	Douglas, Gordon (1912),	Edinburgh.
Cooke, George (1912),	London.	Douglass, John R. (1912), .	Birmingham.
Cooper, Frederic W. (1912),	Birmingham	Drew, George L. (1912), .	Manchester.
Corkill, James L. G. (1912),	Manchester.		
Cornelius, Willoughby G. (1912),	Northampton and Bedford.		
Corsbie, Ernest B. (1912),	Norwich.	EARLE, Richard (1912),	Sheffield.
Couper, George (1912),	Edinburgh.	Eastman, William (1912), .	Norwich.
Cousins, Arthur W. (1912),	London.	Eddison, John Percy (1912),	Yorkshire.
Covington, Stenton T. (1912),	London.	Edmondson, George D'Arcy	
Cowpe, A. Horace (1912), .	Yorkshire.	(1912).	
Cox, Ernest R. (1914),	Birmingham.	Edmunds, Gwilym Arthur	Dundee.
Crane, Francis D. (1914), .	London.	(1912).	
Crippen, Ernest R. (1912), .	Liverpool.	Edwards, Herbert Alfred	London.
Crowther, George D.S. (1912),	Manchester.	(1912).	
Cruise, W. A. Raleigh (1912),	Ireland.	Edwards, Richard (1912),	Ipswich and
Cumming, David (1912), .	London.		Suffolk.
Cumming, Robert (1912), .	Glasgow.	Edwards, William Arthur	Liverpool.
Cutler, H. Foster (1912), .	London.	(1912). Ekins, T. Butt (1913),	Cardiff.
		Elliot, Roland Arthur (1912),	London.
	9	Ellison, Albert G. (1912),	Manchester.
_		Elverston, Sir Harold (1912),	Manchester.
Dagge, Arthur H. (1912), .	Cardiff.	Emmerson, Walter H. R.	London.
Davidson, Robert W.C. (1912),		(1912),	22022022
Davies, Alfred (1912),	Cardiff.	Escott, James G. (1912), .	Brighton.
Davies, David Walter (1912),	Cardiff.	Essex, T. William (1912), .	Birmingham.
Davies, G. Edward (1912), .	London. London.	Evans, Arthur E. (1912), .	Manchester.
Davison, Herbert R. (1912),	Northampton	Evans, Hugh C. (1912),	Manchester.
Dawes, Joseph H. C. (1912),	and Bedford.	Evison, W. Roscoe (1912), .	London.
Dawson, Charles Herbert J.	Manchester.	Ewing, James (1912),	London.
(1912).		Ewing, John M. (1912),	London.
Dawson, William Peel (1912),	London.	Exell, Percy Harold (1912),.	Yorkshire.
De Buriatte, Henry J. Allan 1. (1912).	London.		
Dent, Arthur (1912),	$\left\{ egin{array}{l} ext{Newcastle-} \\ ext{on-Tyne.} \end{array} ight.$	FALKNER, Alfred John (1912),	London.
Dent, Ernest E. (1912),	London.	Featherston, Harry (1912), .	\(\) Northampton
Deuchar, George Duncan	Glasgow.	, , , , , , , , , , , , , , , , , , , ,	and Bedford.
(1912).		Fedden, A. Player (1912), .	London.
Dewhirst, John (1912), .	London.	Fell, Richard L. (1912), .	Manchester.
Dick, Alexander (1912), .	Edinburgh.	Fenton, Francis K. (1912), .	Manchester.

Name.	Institute.	Name.	Institute.
Ferry, Thomas W. (1912), .	Nottingham.	Greening, Henry R. (1912), {	Northampton and Bedford.
Findlow, Frank M. (1912), .	Manchester.	Greening, Herbert J. (1912),	Birmingham.
Fisher, Alan (1914),	Edinburgh.	Greenwood, D. Arnold (1912),	Nottingham.
Fletcher, H. Dudley (1912),	Ireland.	Gregory, Alfred W. (1912),	Liverpool.
Foley, George T. (1912),	Ireland.	Gregory, William H. (1912),	Yorkshire.
Foot, Herbert (1912),	London.	Grenfell, Horace C. (1912), .	Ireland.
Forsyth, William M. (1912),	Ireland.	Grieve, D. Darling (1912), .	Manchester.
Fortey, J. Dryden (1912), .	Liverpool.	Griffiths, Daniel (1914),	Bristol.
Foster, John W. (1912), .	Nottingham. Yorkshire.	Groundwater, Alexander F.	London.
Fox, Charles E. (1912), Fox. LieutColonel C. J.	London.	(1912).	
	London.	Grundy, Edmund F. (1912),	London.
(1912).	Liverpool.	Guernsey, Hamilton B. (1912),	London.
Foyster, T. M. (1913), Fraser, Alister S. (1912), .	Belfast.	Gunn, John (1912),	Edinburgh.
Fraser, Alister S. (1912), Freaker, Edward H. (1912),	London.	Gunningham, Frederick (1912),	Bristol.
Freeman, Bertram H.	Birmingham.	Guthrie, Alexander (1912), .	Glasgow.
(1912).	Diriiiingiidiiii	Guthrie, Charles (1912), .	Glasgow.
Fyffe, Charles L. (1912),	Manchester.	Guttridge, J. Mason (1912),	Liverpool.
13110, 01101100 21 (1012),			
C	Diamin abom	Haigh, Edward C. (1912), .	London.
GARBETT, William H. (1912), Gardiner, Thomas M. (1912),	Birmingham. Edinburgh.	Haldeman, Donald C. (1912),	London.
Gibbs, John (1912),	Bristol.	Halfpenny, Thomas E. (1912),	Cardiff.
Gibson, Henry S. (1912),	Ireland.	Hall, F. Marshall (1912),	Bristol.
Gibson, James B. (1912),	Glasgow.	Hamilton, James (1912),	Yorkshire.
Gilson, Thomas C. (1912), .	London.	Hamilton, Robert M. (1912),	London.
Gladwell, Sydney W. (1912),	London.	Hansford, Edmund C. (1912),	London. London.
Glasson, George C. (1912),	Bristol.	Harding, Francis L. (1912), .	Liverpool.
Glen, James (1912),	Glasgow.	Harper, Thomas H. (1912), .	(North Staf-
Goggs, F. S. (1912),	Edinburgh.	Hartley, Thomas (1912),	fordshire.
Gollmick, Victor G. (1912), .	London.	Haslett, Herbert J. (1912), .	London.
Goodchap, Frederick J. G.	Bristol.	Haworth-Booth, Digby C.	London.
(1912).		(1912).	
Goodwin, Alfred D. 1912), .	Cardiff.	Heal, Albert H. (1912),	Liverpool.
Gordon, Ralph L. (1912), .	London.	Healy, Henry M. (1912), .	London.
Goss, Stanley L. (1912),	Liverpool.	Healy, Louis T. (1912),	London.
Gow, J. Robertson (1912), .	Glasgow.	Hearn, Frederick P. (1912),	London.
Gowlland, Francis E. (1912),	London.	Heath, Frank T. (1912), .	Leicester.
Gracey, Charles F. (1912), .	Belfast.	Heaton, Walter J. (1912), .	London.
Grafton, John N. (1912), .	Dundee.	Henderson, John (1914), .	London.
Graham, Kenneth T. (1912),	Liverpool.	Hendry, Charles (1912), .	Manchester.
Grant, Alexander (1912), .	London.	Higson, Harold (1912),	Manchester.
Gray, William (1912),	Manchester.	Hiles, Edward B. (1912),	London.
Gray, William E. (1912), .	London.	Hill, Charles (1912),	Belfast.
Greaves, G. Hudson (1912), .	Birmingham.	Hill, F. Nettleship (1912), .	Nottingham.
Green, Charles H. (1912), .	London.	Hill, J. Frederick (1912), .	Yorkshire.
Green, John P. (1912),	Brighton.	Hill, John D. (1912),	Sheffield.

Name.	Institute.	Name.	Institute.
Hince, Harry H. (1912),	London.	Kelly, John E. (1912),.	Ireland.
Hines, Ernest E. (1912),	Norwich.	Kelly, Robert F. (1912),	London.
Hoad, Arthur W. (1912),	London.	Kennedy, Alfred W. (1912),	Dundee.
Hobson, Arthur (1912),	Manchester.	Kennedy, Bryan C. M. (1912),	Belfast.
Hogben, John (1912), .	. Edinburgh.	Keown, Thomas H. (1912), .	Belfast.
Holding, Frederick W. (1912)	, Manchester.	Kepple, Reginald H.J. (1914),	Bristol.
Holroyd, Walter A. (1912),	(Huddersfield	Kerr, Andrew M. (1912), .	Belfast.
	(and namax.)	Kerr, George W. B. (1912),.	Dundee.
Hood, Geoffrey (1912), .	. Manchester.	Kestin, Leslie Charles (1912),	London.
Hooper, W. Singleton (1912)		Keysell, Thomas E. (1912), .	London.
Hopkins, Ronald (1914),	. Yorkshire.	Kinloch, James (1912), .	Dundee.
Hopper, George (1912),	Belfast.	Kinnear, Walter S. (1912), .	Ireland.
Hopper, James (1912),	Newcastle-	Kirby, George E. (1912), .	Norwich.
	on-Tyne.	Kirkness, James W. (1912),	Liverpool.
Horsley, Cuthbert (1912),	$\cdot \begin{cases} \text{Newcastle-} \\ \text{on-Tyne.} \end{cases}$	Kirkwood, Charles R. B.,	Glasgow.
Howard, George E. (1912),		(1912).	
Hoyle, William H. (1912),		Kubler, William G. (1912), .	London.
Hughes, Frederick G. (1912)		Laidlaw, David L. (1912), .	Glasgow.
Hughes-Garbett, Percy L		Laidlaw, J. Hunter (1912), .	Glasgow.
(1912).	. Driscon	Laird, John (1912),	Glasgow.
Hulme, George H. (1912),	. Manchester.	Lambert, Charles W. (1912).	Manchester.
Hunt, Arthur L. (1912),	. Birmingham.	Lambert, George L. (1912), .	London.
TT 11 3.5 1 (7070)	. Glasgow.	Land, John (1912),	Manchester.
Hurst, William A. (1912),	. London.	Lane, H. Langridge (1912), .	Bristol.
Hutchins, Frederick (1912)		Lane, J. H. E. (1912),	London.
Hutchinson, Harry (1912),		Large, John (1912),	Norwich.
Hutton, William (1912),	. Glasgow.	Latta, Alexander (1912), .	Birmingham.
, , , , , , , , , , , , , , , , , , , ,	0	Lawrie, Stewart (1912), .	Glasgow.
		Leach, Arthur S. (1912), .	Liverpool.
IMRIE, John H. (1912),	. Edinburgh.	Learmont, James (1912), .	Edinburgh.
0,//	. Yorkshire.	Leggatt, Herbert T. Owen	London.
Irwin, Valentine (1912),	. Ireland.	(1912).	D : 14
		Leonard, Albert J. D. (1912),	Brighton.
Jackson, Arthur G. (1912)	, Bristol.	Leslie, John (1912),	Dundee.
James, Robert B. (1912),	. Yorkshire.	Leslie, Robert P. (1912), .	Birmingham.
James, Sydney (1912),.	. Cardiff.	Letcher, Harold B. (1912), .	Belfast.
Jarvis, Louis I. (1912),	. London.	Levine, Abraham (1912), .	London.
Jefferson, John A. (1912),	. Birmingham.	Lewis, Alfred (1913),	Newcastle- on-Tyne.
Jeffery, Charles R. (1912),	. London.	Lewis, Arthur John (1912), .	
Johnstone, Edward (1912),	. Manchester.	Lewis, Herbert (1912),	- ,
Jones, James E. (1912),	. Manchester.	Lewis, Herbert O. (1912), .	
Jones, John Whitley (1912), Yorkshire.	Lewis, Hugh (1912),	London.
Jones, Owen Dan (1912),	. Edinburgh.	Lewis, Robert (1912),	London.
Jones, Walter E. (1912).	. Manchester.	` ' '	(Newcastle-
		Liddell, John R. (1912), .	on-Tyne.
Keeble, Charles (1912),	. London.	Lindsay, Matthew (1914), .	Glasgow.
Kellar, Walter D. (1912),	. Bristol.	Linley, David M. (1912), .	London.
.,,,			

Name.	Institute.	Name.	Institute.
Little, John Robert (1912), .	Edinburgh.	Marsland, Robert W. (1912),	London.
Littlewood, John Elliot (1912),	Nottingham.	Martindale, George E. (1912),	Liverpool.
Lloyd, W. Evan (1912), .	Cardiff.	Maryan, William N.H. (1912),	Birmingham.
Lockwood, Henry J. (1912),	London.	Maudsley, William T. (1912),	London.
Lodge, Alexander J. (1912), {	North Staf- fordshire.	Maxwell, D. Aubrey (1912),	Glasgow.
	Newcastle-	May, Henry John (1912), .	London.
Logan, James (1912), {	on-Tyne.	Maybury, Edwin (1912), .	London.
T 1 0: Dil (1919)	Newcastle-	Mead, George E. (1912),	London.
Lord, Sir Riley (1912), {	on-Tyne.	Meanock, Herbert (1912), .	Cardiff.
Loudon, John (1912),	Manchester.	Melrose, David (1912),	Glasgow.
Love, Robert (1912),	London.	Milburn, Edwin W. (1912), .	Sheffield.
Low, Herbert A. (1913), .	Liverpool.	Mills, Frederic W. (1912), .	Liverpool.
Lowe, William B. (1912), .	Belfast.	Mills, George T. (1912),	London.
Lyddon, H. Nelson (1912), .	Bristol.	Minnion, Ernest Harry (1912), Minnis, David John (1912),	London. Ireland.
	,	Mitchell, H. Beaufort (1912),	London.
		Moffat, Arthur (1912),	Glasgow.
MACCALLUM, Peter C. (1912),	London.	Mole, William C. (1912),	Cardiff.
M'Causland, George Henry,	London.	Molyneux, Frederic S. (1912),	Nottingham.
(1912).		Moon, James (1912),	Liverpool.
M'Connell, James (1912), .	Belfast.		Newcastle-
M'Connell, William A. (1912),	Ireland.	(1912),	-
M'Culloch, John (1912), .	Glasgow.	Moore, Richard M. (1912), .	Ireland.
Macdermott, Alexander (1912),	Liverpool.	Moorhouse, Alfred (1912), .	Yorkshire.
Macdermott, William H.	Nottingham.	Morant, George C. (1912), .	London.
(1912).	T 1 1	Morant, G. M'Kay (1912), .	London.
Macgregor, Alexander (1912).	Ireland.	Morgan, Arthur (1912),	Newcastle-
Mackay, Robert (1912), .	Aberdeen. London.		\ on-Tyne. London.
Mackay, William Æneas (1912).	London.	Morrison, John (1912),	Dundee.
M'Kean, George A. (1912), .	Sheffield.	Mulhall, James A. (1912),	Ireland.
M'Keand, Frank A. (1912), .	Bristol.	Mumford, William J., (1912),	Birmingham.
Mackenzie, Robert K. (1912),	Liverpool.	Munday, David M. (1912), .	London.
Mackinnon, John (1912),	Liverpool.	Handay, 19401d M. (1912), .	Bondon.
M'Laren, Norman (1912), .	London.		
M'Lean, James W. L. (1912),	Liverpool.	NAISMITH, William W. (1912),	Glasgow.
Maclennan, Donald Wylde	London.	NAISMITH, WIIIIAIII W.(1912),	(Newcastle-
(1912).		Neish, William G. (1912), .	on-Tyne.
Maclennan, James John (1912),	Glasgow.	Newlands, Edward F. (1912),	Edinburgh.
Macneil, Patrick (1912), .	Glasgow.	Newlands, George (1912), .	Aberdeen.
M'Neill, James Henry (1912),	Glasgow.	Newman, V. Chester (1912),	London.
Macniven, Archibald (1912),	Manchester.	Newton, Samuel H. (1912), .	Nottingham.
Macready, William R. (1912),	London.	Nichols, George H. (1912), .	Manchester.
Maltby, Henry (1912), .	London.	Nicholson, Herbert P. (1912),	Yorkshire.
Mann, Henry (1912),	London.	Nicol, William S. (1912), .	Glasgow.
Marks, Geoffrey (1912), .	London.	Nicoll, James G. (1912),	London.
Marks, George H. (1912), .	London.	Nolan, Thomas M. A. (1912),	Ireland.
Marsden, John W. (1912), .	Liverpool.	Norie-Miller, Francis (1912).	Perth.

Name.	Institute.	Name.	Institute.
Norman, Herbert (1912), .	Birmingham.	Pope, John R. (1912),	Birminghan
Noverre, Charles E. (1912), .	London.	Pope, William A. (1912), .	Manchester.
Nuttall, Leonard (1912), .	Manchester.	Potter, Arthur (1912), .	Yorkshire.
	1	Potterton, W. M. (1912) .	Belfast.
		Powell, Joseph (1912),	London.
Ogden, Herman (1912), .	Manchester.	Preston, Frank E. (1912), .	Bristol.
Ogilvie, J. Gordon (1912), .	Newcastle- on-Tyne.	Pringle, James (1912),	Newcastle- on-Tyne.
Ogilvie, Robert A. (1912), .	London.	Pringle, William (1912), .	Dundee.
Ogilvie, W. (1913),	Newcastle- on-Tyne.	Proctor, Joseph S. (1912), . Pugh, Llewelyn L. (1912), .	Glasgow. Cardiff.
Oldham, Charles (1912),	London.		
O'Reilly, Bernard H. (1912),	Ireland.		
Ostler, James (1912),	Manchester.	QUEEN, Arthur John (1912),	Edinburgh.
O'Sullivan, Peter J. (1912),.	Ireland.		
Owen, E. Roger (1912),	London.		
Owen, J. Lloyd (1912),	London.	RADCLIFFE, Hubert S. (1912),	Bristol.
Owen, Maurice L. (1912), .	Birmingham.	Rae, Archibald F. (1912), .	Aberdeen.
Owen, O. Morgan (1912), .	London.	Randall, Charles E. (1912), .	London.
		Rankin, William C. (1912), .	Glasgow.
		Rann, Arthur R. (1912), .	Birmingham
PALMER, Sydney H. (1912),.	Brighton.	Ray, Henry (1912),	Manchester. London.
Panton, Frederic W. (1912), {	Newcastle-	Reddrop, Frederick (1912), . Redfarn, James J. (1912), .	Liverpool.
Parry, E. Morant H. (1912),	on-Tyne.	, , , , , ,	Newcastle-
Pasfield, Sidney G. (1912), .	London.	Reed, Robert Laing (1912),	on-Tyne.
Paterson, John (1912),	Liverpool.	Relton, Arthur J. (1912), .	London.
Patrick, Alfred E. (1912), .	Birmingham.	Renison, William J. H. (1912),	Liverpool.
Paulden, Frank (1912), .	Manchester.	Reynolds, George William	London.
Paulin, Sir David (1912), .	Edinburgh.	(1912).	
Peacock, Colin (1912),	Newcastle- on-Tyne.	Richardson, William (1912), Richardson, William (1912),	Norwich. Liverpool.
Peat, Robert B. (1912),	Ireland.	Rickwood, Frederick H.	London.
Peate, John M. (1912),	Ireland.	(1912).	
Penn, Andrew (1912),	Glasgow.	Riddel, William Hewat (1912),	Bristol.
Peregrine, Charles (1912), .	Manchester.	Ridley, Percy E. (1912), .	London.
Perkins, James E. (1912), .	Liverpool.	Ridoutt, Alfred E. (1912), .	London.
Perry, William T. (1912), .	London.	Riley, Thomas S. (1912), .	Yorkshire.
Phillips, Charles W.S., (1912),	London.	Riley, William H. (1912), .	Yorkshire.
Phillips, John (1912),	Cardiff.	Rimmer, John C. (1912), .	Liverpool.
Pim, R. Barclay (1912),	Belfast.	Rimmer, William S. (1913),	Belfast.
Pipkin, Samuel J. (1912), .	London.	Riseley, Henry L. (1912), .	Bristol.
Pitcher, W. Fred. (1912),	Cardiff.	Ritchie, Frank B. (1912),	London.
Plenderleith, Mungo (1912),	Glasgow.	Roberts, Arthur O. (1912), .	Liverpool.
Plummer, Norman C. (1912),	Cardiff.	Roberts, William (1912), .	Liverpool.
Pollard, James A. (1912), .	London.	Robertson, Alexander D.	Liverpool.
Pollit, Henry J. (1912),	Liverpool.	(1912).	T :1
Ponsonby, Theobald B. (1912),	London.	Robertson, Archibald (1912),	Liverpool.

Name.	Institute.	Name.	Institute.
Robertson, John (1912), .	Aberdeen.	Speers, John (1912),	Manchester.
Robertson, Thomas W. (1912),	Dundee.	Spence, J. Fleming D. (1912),	Manchester.
Robertson, William A. (1912),	Edinburgh.	Spence, Philemon C. (1912),	Liverpool.
Roddick, Robert M. M. (1912),	Edinburgh.	Stables, William (1912), .	Aberdeen.
Rodger, Adam Keir (1912), .	Glasgow.	Stanier, Percy A. (1912), .	Yorkshire.
Rodgers, Alfred (1912),	Manchester.	Stanley, Frank L. (1912), .	Ireland.
Rollason, Joseph G.W. (1912),	London.	Starkey, William H. (1912),	Liverpool.
Rooney, Joseph A. (1912), .	London.	Stenhouse, George C. (1912),	Edinburgh.
Roy, Richard (1912),	Dundee.	Stevenson, Henry J. (1912),	Edinburgh.
Rutherford, Frederick W.	London.	Stewart, Charles N. (1912), .	Glasgow.
(1912).		Stewart, James W. (1912), .	Glasgow.
Rutter, Frederick W. P. (1912),	Liverpool.	Stirling, James (1912),	London.
	_	Stirling, Robert (1912), .	London.
		Stock, Percy (1912),	Yorkshire.
G 77 TF (1010)	т 1	Sugden, John D. (1912), .	Manchester.
SARE, Thomas H. (1912),	London.	Sutherland, William (1912),	Edinburgh.
Saunders, Henry C. (1912), .	Birmingham.	Suttie, Thomas E. (1912), .	Dundee.
Saunderson, Herbert W.,	Nottingham.	Sutton, W. Bertram L. (1912),	London.
(1912).	Bristol.	Swanson, John (1912),	London.
Savile, Charles C. (1912),	Manchester.	Sweet, Alfred G. (1912), .	London.
Scott, Francis C. (1912), . Scott, James M. (1912), .	Belfast.	Sykes, Eustace (1912),	Liverpool.
Scott, William James (1912),	Edinburgh.	Symington, Colin (1912), .	Edinburgh.
Searls, Walter James (1912),	London.		
Self, Ernest (1912),	Yorkshire.		
Sellors, James M. (1912),	London.	Tait, John J. (1912),	London.
Shannon, Denis Albert (1912),	Ireland.	Tapp, William Pearce (1912),	Bristol.
Shaw, W. Macintyre (1912),	Glasgow.	Tapscott, Henry J. (1912), .	Birmingham.
• • • • • • • • • • • • • • • • • • • •	(Newcastle-	Tavener, Frank J. L. (1912),	Cardiff.
Shutt, C. (1912),	on-Tyne.	Taylor, Clement F. (1912), .	Cardiff.
Simmons, Hamilton W. (1912),	London.	Taylor, George E. (1912),	Belfast.
Simmons, Lewis H. (1912), .	Birmingham.	Taylor, Harold (1912),	Nottingham.
Simpson, George S. (1912), .	Glasgow.	Taylor, Hugh S. (1912), .	Liverpool.
Sinton, William (1912), .	Liverpool.	Taylor, Robert (1912),	Yorkshire.
Skeggs, Alfred (1912), , .	London.	Taylor, Robert E. (1912), .	Glasgow.
Sketch, Ralph Y. (1912), .	London.	Taylor, William E. (1912), .	I ondon.
Slagg, William C. (1912), .	London.	Tebbutt, Lewis B. (1912),	Northampton
Smith, Charles W. (1912), .	Birmingham.		and Bedford.
Smith, D. H. Gordon (1912),	Yorkshire.	Thobaven, John (1912), .	Dundee.
Smith, John, Jr. (1912), .	Cardiff.	Thomas, Ernest H. (1912), .	Manchester.
Smith, Philip J. (1913),	Bristol.	Thomas, Harold A. (1912), .	Nottingham.
Smith, R. Gordon (1912), .	Glasgow.	Thomas, Richard E. (1912), .	Cardiff.
Smith, Sidney Thomas (1912),	London.	Thompson, E. Stuart (1912),	London.
Smith, Walter A. (1912),	Edinburgh.	Thompson, Robert W. (1912),	Liverpool.
Sneezum, Henry T. (1912), .	London.	Thomson, Alexander Gibbon	Perth.
Snushall, Alfred J. H. (1912), Southam, Herbert E. (1912),	Birmingham. London,	(1912).	Tiwamaal
Sparrow, George F. (1912),	Ireland.	Thomson, James Beveridge	Liverpool.
Sparrow, George F. (1912), .	reland,	(1914).	

Name.	Institute.	Name.	Institute.
Thomson, Robert Tickell	London.	Watson, James Doug	las
(1912).		(1912),	. London.
Thoresby, Frederick (1912),	London.	Watson, Leslie T. (1912),	. Norwich.
Tombazis, John A. (1912), . Tooke, Arthur F. (1912), .	Dundee. Bristol.	Watson, William (1912),	$\cdot \left\{ egin{array}{l} ext{Newcastle-} \\ ext{on-Tyne.} \end{array} ight.$
Torrance, R. (1912),	Ireland.	Waugh, David (1912), .	. Edinburgh.
Torrens, David (1912),	London.	Webb, William (1912),	. Yorkshire.
Towers, Walter (1912),	Nottingham.	Wheeler, Edgar (1914),	. London.
Towle, Louis J. (1912),	Nottingham.	White, Arthur E. C. (191	**
Toyne, Bertie C. (1912),	London.	White, Frederick (1912),	. London.
Tregaskis, George (1912),	Bristol.	White, Wilfred W. (1912)	
Trenam, Cecil (1912), .	Manchester.	Whymper, William N. (191	
Tripe, Harry (1912) Truzzell, Harry (1912),	London. Nottingham.	Williams, Ernest G. (191	2), { North Staffordshire.
Turnbull, Walter H. (1912),	Birmingham.	Williams, M. Trevor (191	2), Ireland.
Turner, Herbert F. (1912), .	London.	Williams, W. Henry (191	2), Manchester.
Turner, Sydney C. (1912), .	London.	, , , , , , , , , , , , , , , , , , , ,	F.
Tyler, Stanley S. (1914),	London.	(1912),	. Birmingham.
19101, 20011109 2. (1011),	2301140111	Williamson, James (1912),	, Belfast.
		Wills, Grahame H. (1912)	, . Bristol.
URQUHART, Peter J. (1912),	Edinburgh.	Willson, J. Harcourt (191	* *
		Wilson, Henry E. (1912),	. London.
		Winn, Arthur R. (1912),	. Birmingham.
WALKER, David C. (1912), .	Manchester.	Wisely, William M. (191	,,
Walker, Davidson (1912), .	Norwich.	Wood, Percy G. (1912),	. Hull.
Walker, Norman M. (1912),	London.	Woodhill, Willlam W. (191	
Walton, Richard (1912), .	Liverpool.	Worley, Arthur (1912),	. London.
Wamsley, Arthur W. (1912),	London.	Wormleighton, Edwin	
Wansbrough, Thomas P.		(1912),	. \ and Bedford. Cardiff.
(1912),	London.	Wyatt, Henry (1912), .	. Liverpool.
Ward, William Henry P.		wyatt, Henry (1912), .	, Liverpool.
(1912),	London.		
Warden, Gilbert F. (1912), .	Manchester.	YARROW, Herbert E.	C.
Wardman, George (1912), .	Manchester.	• "	. London.
Warner, Harold (1912),	Birmingham.	, , , , , , , , , , , , , , , , , , , ,	. London.
Warner, James R. (1912),	Ireland.	Young, Frederick J. (1912	
Waterstone, James S. (1912), {	Newcastle-	Young, Harry James (1919)	
17 atorstone, values b. (1912), 1	on-Tyne.	Yule, David M. D. (1912),	. Edinburgh.

LIST OF ASSOCIATES.

Name. Institute.	Name, Institute
ABIGALL, Archibald J. (1912), Norwich.	Cooper, Archibald E. (1912), Manchester.
Adam, James B. (1912), . Edinburgh.	Cox, John H. (1914), . Nottingham.
Akeroyd, Fred. (1912), . Manchester.	Crawford, John (1912), . Dandee.
Allen, Donald C. (1912), . { Newcastle-on-Tyne.	Crowe, John Y. (1912), Bristol. Crowther, Vincent O. (1913), Yorkshire.
Armstrong, Robert P. (1912), Birmingham.	Cruickshank, Arthur (1912), Glasgow.
Atfield, Herbert S. (1913), . London.	Cruickshank, John (1912), . Edinburgh.
	Cuthbert, Laurence (1912), . \{\begin{align*} Newcastle- & \text{or Ture} \\ \text{or Ture} \end{align*}
Backhouse, Arthur L. (1912), Cardiff.	on-Tyne.
Bagnall, Harold H. (1912), . Manchester.	
Bain, Ebenezer (1912), Belfast.	DALTON, Henry E. J. (1912), Yorkshire.
Balston, Harry A. (1912), . London.	Davidson, John (1912), . Edinburgh.
Barker, Frederick Wm. E., Manchester.	Davidson, William (1912), . Glasgow.
(1912).	Davies, Edward W. (1914), . London.
Barker, Samuel (1912), . Manchester.	Denton, Frank P. (1912), Yorkshire.
Barnfield, George (1912), . Birmingham.	Dixon, Cecil (1912), . Yorkshire.
Bate, Horace (1914), Liverpool.	Dixon, George K. (1912), . Birmingham.
Binney, Godfrey William (Newcastle-	Dobson, Wilfred (1912), . Birmingham.
(1912), on-Tyne.	Duncan, James G. (1912), . \{\begin{aligned} Newcastle-\text{Newcastle-} \\ \text{Newcastle-} \end{aligned}
Blackmore, P. Barry (1912), Cardiff.	on-Tyne.
Blackstock, William Witt Manchester. (1912).	Faces I I (1919) (Huddersfield
Blandford, Charles R. (1912), Bristol.	Eddison, John H. (1912), . and Halifax.
Bonner, Thomas (1912), . Bristol.	Edwards, James (1912), Cardiff.
Brady, John G. (1912), Glasgow.	Eldridge, Ernest E. B. London.
Brown, Charles R. (1914), . London.	(1912).
Brown, John A. (1912), . { Newcastle- on-Tyne.	Emmison, John E. (1912), . Liverpool. Evans, Ernest (1913), London.
Brown, Thomas G. (1913), . Liverpool.	Evans, Ernest (1919), Dondon.
Buckle, Cuthbert (1914), . London.	
Burrow, George Wyon (1913), Bristol.	FARR, H. Bevitt (1912), . Cardiff.
Buttery, Harry R. (1912), . London.	Farrer, Charles E. (1912), . Manchester.
	Ferguson, Charles H. (1912), Liverpool.
Calvey, Hubert (1914), . Liverpool.	Fletcher, H. J. Newbolt Liverpool.
Carmichael, Donald (1912), . Cardiff.	(1912).
Carpenter, Gilbert (1912), . London.	Foster, Alexander A. (1912), Edinburgh.
Carson, Charles F. (1912), Birmingham.	Foster, John W. W. (1912), Yorkshire.
Casson, Alan J. (1912), Yorkshire.	Foulkes, John S. (1912), Liverpool.
Castle, Herbert P. E. (1912), London.	Fullerton, John (1912), Liverpool.
Clark, Frank P. (1912), . Manchester.	Fyfe, Henry M. (1912), . Edinburgh.
Clarke, Charles H. (1912), . Perth.	
Clarkson, Walton (1914), . Nottingham.	CARMINATOR Too (1010) Pinningham
Cockell, James F. B. (1912), London.	GARTHWAITE, Joe (1912), Birmingham.
Coltman, Arthur (1912), . Yorkshire.	Gay, L. John A. (1912), Swansea.
	Geddes, Robert (1912), . Edinburgh.
Comfort, Thomas A. (1912), Edinburgh.	Gerrard, James G. (1912), . London.

Name.	Institute.	Name.	Institute.
Gildea, Charles E. (1912), .	Ireland.	LAING, Allan M. (1912), .	Liverpool.
Goldsmith, Harold A. (1912),	Brighton.	Laird, James (1912),	Edinburgh.
Greig, W. T. (1912),	London.	Langley, Joseph W. (1912), {	Northampton
Grey, Arthur O. (1914), .	Ireland.	Langley, Joseph W. (1912), {	and Bedford.
Grimble, Barnard (1914), .	Norwich.	Lea, John (1914),	Yorkshire.
Grinling, John (1912),	Norwich.	Leadsom, William H. (1912),	Manchester.
· · · · · · · · · · · · · · · · · · ·			
Hale, William Bancroft (1912). Hames, Jackson (1912), . Hanbury, Geoffrey (1912), . Hansen, Hans Georg E. U. (1912). Hartley, Alfred E. (1912), . Haughton, Hugh P. (1912), . Henderson, Frank (1912), . Henderson, George E. (1912), . Henshall, Tom. (1912), . Heron, Joseph (1913), . Hewitt, Ernest H. (1912), . Hicking, Thomas (1912), .	Belfast. Glasgow. London. Newcastle- on Tyne. Manchester. Ireland. Liverpool. Newcastle- on-Tyne. Nottingham. Liverpool. Belfast. Cardiff.	M'Donald, John (1912), Macgregor, Llewellyn, (1912), MacGregor, Robert (1912), MacInnes, William (1912), M'Michael, David H. (1912), M'Nab, William R. (1912), M'Robert, James H. (1912), Marquis, Arthur (1912), Marshall, George F. (1912), Martin, George E. (1912), Matthews, Joseph H. (1913), Metcalf, T. Chapman (1912), Metcalf, Wm. Ernest (1912), Miller, Edward (1912),	Edinburgh. Glasgow. Glasgow. Glasgow. Nottingham. Ireland. Edinburgh. Dundee. Birmingham. Yorkshire. London. Yorkshire. Newcastleon-Tyne.
		Morris, Edward O. (1912), .	Liverpool.
Hickson, Charles H. (1914), Hitch, Edward G. (1913),	London.	Mountford, Ernest H. (1912),	Birmingham.
Hitchcock, Reginald S. (1913).	Liverpool. London.	Murphy, John W. (1912), .	Belfast.
Hodges, Eric S. (1912), Hodgson, Thomas E. (1912),	London. London.	NEWHAM, Frederic J. (1913), Nichols, Walter L. (1914),	Birmingham.
Holbert, Arthur D. (1912), .	Liverpool.	Norris, Henry C. (1912), .	Edinburgh.
Hopper, Frederick J. (1912),	London.	Norms, memy O. (1912), .	Bambargii.
Horsfall, Benjamin E. (1912),	Manchester.		
Howe, Clarence S. T. (1912),	Yorkshire.	OATES, Francis E. (1912),	Yorkshire.
Howlett, Lynton Lort (1912),	Birmingham.	O'Neill, Harold E. (1912), .	Liverpool.
Hume, William W. K. (1914),	Liverpool.		
ISDALE, John D. (1912),	Newcastle- on Tyne.	Paterson, John B. (1912), Pattison, George A. J. (1912),	Northamptor ahd Bedford Birmingham, Ireland,
Jenkins, Albert M. (1914), . Jennings, Harry (1912), . Johnson, Thomas H. (1912), Jones, Ceredig (1912), . Jones, Thomas L. (1912), . Jones, Vivian Emlyn (1912),	Birmingham. Birmingham. Manchester. Liverpool. Liverpool, Cardiff.	Penney, William (1912), Percy, Horace (1912), Perowne, Frank R. (1912), Pindar, John H. (1912), Plowright, Sydney Geo. F. (1912). Potter, George (1912),	Manchester. Liverpool. Birmingham. Sheffield. Birmingham. Yorkshire.
		Price, Walter A. (1912), .	Birmingham
KNIGHT, William H. (1912),	Birmingham.	Progin, Robert (1912),.	Glasgow.

210077001	Institute. lewcastle- on-Tyne.	Name. Templemore, Edgar H. L. (1914).	Institute. London.
Robertson, Stuart (1912), . G Robertson, Wm. Binny D	elfast. lasgow. Jundee.	Thomas, Harold A. (1913), . Thomas, Sydney Herbert (1912). Tyner, Walter B. (1912), .	London. London. Ireland. Cardiff.
	ristol. heffield.	Tyson, Stanley (1912),	Sheffield.
Scott, G. Ernest (1912), S	Torkshire. heffield. Tewcastle- on-Tyne.	VENELLI, Raphael P. M. (1912).	London.
Sherwood, Thomas B. (1912), M. Simmons, Henry B. (1912), B. Smathers, Harry L. (1912), L. Smith, Harrison C. (1912), M. Smith, S. Arthur G. (1912), M. Smith, Thomas (1912), L. Stewart, Thomas (1912), G. Stove, James (1912), G. Sullivan, Herbert C. (1912), M. Surmun, Henry (1912), L. Surmun, Henry (1912), M. Sutcliffe, Harold R. (1912), M. Sutcliffe, William (1912), M. Sutcliffe, William (1912), M.	Hasgow. Janchester. Bristol. Jorth Staffordshire. Janchester. Janchester.	Wallace, Robert C. (1912), Wands, Robert D. (1912), Wardle, James K. (1912), Wardman, Robert (1912), Waters, William N. (1912), Wedgwood, Byron H. (1912), Weeks, Reginald (1912), Welch, Robert (1912), Wells, Harold E. (1914), Whiteman, George H. (1912). Wilson, Thomas H. (1912),	London. Liverpool. Yorkshire. Manchester. Glasgow. (North Staffordshire. Bristol. Liverpool. Birmingham London. Yorkshire.
TAYLOR, Edward Natuna P (1912).	erth.	YERBURY, Francis H. B. (1914).	Bristol.

EXAMINERS, 1915.

NAME.	Town.	Date of Election.	Branch.
J. Beckwith Bell, F.C.I.I., James Black, F.C.I.I., W. Blair, F.C.I.I., J. Headon Boocock,	Liverpool, Belfast, Bristol, Birmingham,	1907. 1914. 1905. 1898.	Accident. Fire. Fire. Fire.
F.C.I.I., C. F. Burne, F.C.I.I., D. M. Cameron, F.C.I.I., Pat. B. Carphin, F.C.I.I.,	Liverpool, Edinburgh, Dublin,	1913. 1909. 1913.	Fire. Fire.
J. H. Chapman, F.C.I.I., J. N. Clymer, F.C.I.I., S. d'E. Colam, F.C.I.I., F.F.A.,	Manchester, Manchester, Edinburgh,	1904. 1907. 1913.	Fire. Fire. Life.
G. Couper, F.C.I.I., A. H. Cowpe, F.C.I.I., J. H. Dixon, H. Dougharty, F.C.I.I.,	Edinburgh, Leeds, London, London,	1913. 1905. 1913. 1909.	Accident. Fire. Fire. Life.
A.I.A., F.S.S., J. P. Eddison, F.C.I.I., T. W. Essex, F.C.I.I., A. E. Evans, F.C.I.I.,	Leeds, Birmingham, Manchester,	1899. 1908. 1910.	Fire. Fire. Fire. Fire.
Hugh C. Evans, F.C.I.I., W. R. Evison, F.C.I.I., W. J. Fairclough, R. L. Fell, F.C.I.I., J. W. Foster, F.C.I.I.,	Manchester, London, Liverpool, Manchester, Nottingham,	1909. 1906. 1913. 1913. 1908.	Fire. Fire. Life. Accident. Accident.
A. S. Fraser, F.C.I.I., . H. Gayford, A.I.A., J. Gibbs, F.C.I.I., . F. S. Goggs, F.C.I.I.,	Belfast, London,	1903. 1907. 1913. 1904.	Fire. Fire. Accident.
A.I.A., John R. Gow, F.C.I.I., . G. Green, M.A., F.I.A., A. W. Gregory, F.C.I.I.,	Glasgow, London, Liverpool,	1911. 1913. 1910.	Accident. Life. Accident.
E. F. Grundy, F.C.I.I., . A. Guthrie, F.C.I.I., . Charles Guthrie, F.C.I.I., F.F.A.,	London, Glasgow, Glasgow,	1912. 1905. 1909.	Fire. Fire. Life.
J. Mason Guttridge, F.C.I.I., A. Stoughton Harris, M.A., F.I.A.,	Liverpool,	1901.	Fire.
H. M. Healy, F.C.I.I., . W. Holbrook,	London, Wallasey,	1906. 1903.	Fire. Fire.

EXAMINERS, 1915—continued.

\		Data of	
NAME.	Town.	Date of Election.	Branch.
A. Holliday,	Newcastle-on-Tyne,	1914.	Accident.
C. E. Howell, M.A.,	Dublin,	1899.	Life.
LL.D., A.I.A.,			
J. H. Imrie, F.C.I.I.,	Edinburgh,	1912.	Life.
M.A., F.F.A.,	Manahastan	1913.	Accident
E. V. Jeens, E. Johnstone, F.C.I.I., .	Manchester,	1913.	Fire.
Owen Dan Jones, F.C.I.I.,	Edinburgh,	1901.	Fire.
Walter E. Jones, F.C.I.I.,	Manchester,	1909.	Accident.
A. L. Kavanagh,	London,	1913.	Fire.
David L. Laidlaw, F.C.I.I.,	Glasgow,	1903.	Fire.
James Laird, A.C.I.I., .	Edinburgh,	1913.	Fire.
John Laird, F.C.I.I.,	Glasgow,	1913.	Fire. Fire.
G. L. Lambert, F.C.I.I., J. R. Liddell, F.C.I.I.,	London, Newcastle-on-Tyne,	1903. 1912.	Fire.
H. E. W. Lutt, F.I.A.,	London,	1912.	Life.
G. H. M'Causland, F.C.I.I.,	London.	1913.	Fire.
A. Macdermott, F.C.I.I.,	Liverpool,	1913.	Accident.
W. H. Macdermott,	Nottingham,	1911.	Fire.
F.C.I.I.,	43 3.	1010	A : -1 4
R. Mackay, F.C.I.I., F.F.A.,	Aberdeen,	1913.	Accident.
J. W. L. M'Lean, F.C. I.I.	Liverpool,	1910.	Accident.
G. F. Marshall, A.C.I.I.,	Birmingham	1913.	Accident.
W. T. May, F.I.A.,	Liverpool,	1913.	Life.
E. H. Minnion, F.C.I.I.,	London,	1910.	Fire.
George C. Morant, F.C.I.I.,	Hove, Sussex, .	1909.	Fire.
W. G. Neish, F.C.I.I.,	Newcastle-on-Tyne,	1904.	Fire.
E. F. Newlands, F.C.I.I.,	Edinburgh,	1908. 1899.	Fire. Life.
P. L. Newman, B.A., F.I.A.,	York,	1099.	12116.
H. D. O'Donnell,	London,	1913.	Accident.
A. Oliver.	Leeds	1914.	Fire.
J. Ostler, F.C.I.I.,	Manchester,	1898.	Fire.
E. Roger Owen, F.C.I.I.,	London,	1907.	Fire.
F. W. Panton, F.C.I.I.,	Newcastle-on-Tyne,	1908.	Fire.
Samuel J. Pipkin, F.C.I.I., T. B. Ponsonby, F.C.I.I.,	London,	1907. 1913.	Fire. Fire.
J. S. Proetor, F.C.I.I.,	Glasgow,	1913.	Fire.
H. S. Radcliffe, F.C.I.I.,	Bristol,	1914.	Fire.
B. Redford,	Newcastle-on-Tyne,	1914.	Fire.
W. Richardson, F.C.I.I.,	Edinburgh,	1903.	Fire.
F. H. Rickwood, F.C.I.I.,	London,	1911.	Accident.
J. B. Roberts, A. Robertson, F.C.I.I.,	Leeds,	1898.	Fire.
F.F.A.,	Liverpool,	1912.	Life.
A. D. Robertson, F.C.I.I.,	Liverpool,	1909.	Fire.
F. W. Robertson, F.F.A.,	Edinburgh,	1913.	Life.
A.I.A.,			
J. Robertson, F.C.I.I.,	Aberdeen,	1904.	Fire.
R. M. M. Roddick, M.A., F.C.I.I., F.F.A.,	Edinburgh,	1909.	Life.
R. H. Russel,	Brighton,	1903.	Fire.

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EXAMINERS, 1915—continued.

NAME.	Town.	Date of Election.	Branch.
G. M. Searle, F.I.A., W. Macintyre Shaw, F.C.I.I., T. F. Sherman, D. H. Gordon Smith, F.C.I.I., S. A. G. Smith, A.C.I.I., A. W. Sneath, P. C. Spence, F.C.I.I., G. C. Stenhouse, F.C.I.I., F.F.A., J. Swanson, F.C.I.I., Robert Taylor, F.C.I.I., W. E. Taylor, F.C.I.I., L. J. Towle, F.C.I.I., T. P. Wansbrough, F.C.I.I., A.I.A., Wm. Webb, F.C.I.I., E. F. Williamson, F.C.I.I., Arthur Worley, F.C.I.I., Arthur Worley, F.C.I.I., R. W. Worthington, F.I.A., A. B. Wright, R. Y. Murray Wright, Henry Wyatt, F.C.I.I.,	London, London, Glasgow, Liverpool, Leeds, Leeds, Liverpool, Edinburgh, London, Leeds, London, Leeds, London, Nottingham, Liverpool, London, London, London, Liverpool, London, London, Liverpool, London, Liverpool, London, Liverpool, London, Liverpool, London, Liverpool, London, Liverpool, London,	1913. 1913. 1911. 1913. 1913. 1913. 1913. 1912. 1911. 1906. 1911. 1909. 1914. 1912. 1914. 1912. 1913. 1913. 1913.	Fire. Life. Accident. Fire. Fire. Fire. Life. Accident. Fire. Life. Accident. Fire. Accident. Fire. Accident. Fire. Life. Fire.

LIST OF SUBSCRIBING OFFICES, 1914.

ALLIANCE ASSURANCE COMPANY, LIMITED.

ATLAS ASSURANCE COMPANY, LIMITED.

CALEDONIAN INSURANCE COMPANY.

COMMERCIAL UNION ASSURANCE COMPANY, LIMITED.

COUNTY FIRE OFFICE, LIMITED.

FRIENDS' PROVIDENT INSTITUTION.

GUARDIAN ASSURANCE COMPANY, LIMITED.

LAW UNION AND ROCK INSURANCE COMPANY, LIMITED.

LIVERPOOL AND LONDON AND GLOBE INSURANCE COMPANY, LIMITED.

LONDON AND LANCASHIRE FIRE INSURANCE COMPANY, LIMITED.

NETHERLANDS FIRE AND LIFE INSURANCE COMPANY.

NORTHERN ASSURANCE COMPANY, LIMITED.

NORWICH UNION FIRE INSURANCE SOCIETY, LIMITED.

PHŒNIX ASSURANCE COMPANY, LIMITED.

PRUDENTIAL ASSURANCE COMPANY, LIMITED.

ROYAL INSURANCE COMPANY, LIMITED.

SCOTTISH UNION & NATIONAL INSURANCE COMPANY.

SUN INSURANCE OFFICE.

UNION ASSURANCE SOCIETY, LIMITED.

YORKSHIRE INSURANCE COMPANY, LIMITED.

INCOME AND EXPENDITURE ACCOUNT for the Year ended 31st December, 1914.

Expenditure.	re or	. 4	3ncome.			
TO GENERAL EXPENSES-	ŝ	ŝ	By Contributions—	; ; ;	₩,	ä.
Secretary's and Assistants' Salaries 35 Rent, Lighting, Cleaning, &c 15 Subscription for Telephone			Insurance Companies Institute Levies Colonial Institutes	. 133 3 6		
Secretary's Travelling Expenses					242 19	9 6
Postages, Carriage, and Petty Cash Printing and Stationery	47 13 5 43 6 3		", Election Fees	:	114	0 6
::	3 14 6	691 10 10	,, Examinations— Britance Fees, &c	:	417 15	e0
", EXPENSES OF EXAMINATIONS— (Not comprised in the above.) Printing and Stationery 1- Postages and Carriage	140 19 10 11 14 10		", JOURNAL SALES— Institutes C. & E. Layton Sundries	. 208 13 1 . 21 1 6 19 3 11		
	68 19 6				248 18	9 8
:		326 14 2	", SALE OF SUBJECT INDEX	:	4	9 9
	i i		". INTEREST ON INVESTMENTS	:	225	0 2
Frinting Volume Av I., &c Z. Printing Subject Index	23 7 6	935 4 6	" Bank Interest	:	τς.	9 7
" MISCELLANEOUS EXPENSES		10	", BALANCE Excess of Expenditure over Income for the year	the year	re	1 9
	1 24 11	£1,264 0 0		1 48 1	£1,264 0	0
					I	ľ

BALANCE SHEET, 31st December, 1914.

Diabilities.	Elssets.
	& Midland Bank $390 1 4$
Amount of Fund at 31st December, 1913 307 8 11 Add Excess of Income over Expenditure 5 1 1 312 10 0	
RUTTER PRIZE FUND— Amount of Fund at 31st December, 1913 312 7 0 Less Excess of Expenditure over Income 2 9 6 ——————————————————————————————————	JOURNAL XVII. (not distributed at this cast of Printing 243 16 4
	£2,000 Province of Quebec 4½% (1954) Stock
RESERVE FUND (Specially contributed by Insurance Companies in 1912) 2,577 10 0	"(B") Stock 2,481 7 9 5,994 7 (STANLEY BROWN PRIZE FUND—
1	E292 City of Montreal 4½% (1951) Stock 300 2 0 Cash at Bank 12 8 0 312 10 0
Less Excess of Expenditure over Income 5 1 9 3,932 10 10	### RUTTER PRIZE FUND— ### \$1,000 Southampton Railway Company ### (1942) Bonds 199 17 7 Cash at Bank 109 19 11
	General Prize Fund— Cash at Bank 477 15 9
£7,857 14 11	£7,857 14 11

RUTTER PRIZE FUND.

## SHOOM STORM TO SHOOM TO SHOOM TO SHOOM	STANLEY BROWN PRIZE FUND.	2. 8. 6. 0 BY INTEREST ON INVESTMENT 12. 6. 1 1. BANK INTEREST 0. 3 2.12. 9 1	GENERAL PRIZE FUND.	L BY FURTHER DONATIONS RECRIVED 5420 8 7 ,, BANK INTEREST 5420 8 6420 8 6420 8 6425 12
Expenditure. ### S. d. To Prizes Awarded in respect of 1914 Examinations 20 0 0 #### 20 0 0	STANLEY BR	To PRIZES AWARDED in respect of 1914 Examinations $\frac{\mathcal{E}}{7}$ 8.10 " Balance" $\frac{7}{7}$ 8 10 " Excess of Income over Expenditure for the year $\frac{5}{1}$ 1 $\frac{1}{2}$	GENERAL	To Balance Excess of Income over Expenditure for the year 425 12 7

WE have audited the foregoing Income and Expenditure Account, Balance Sheet, and Special Fund Accounts, and hereby certify their correctness. We have obtained all the information and explanations we have required.

We have inspected the Securities representing the General and Special Funds, and found them in order.

Certified—W. E. BLAKE, Members of the O. MORGAN OWEN, Council.

SPAIN BROS. & CO., Okardered Accountants. 45 LONDON WALL, LONDON, E.C., 22nd April, 1915.

THE INSURANCE INSTITUTE OF ABERDEEN.

Founded 1911.

Objects: The cultivation of knowledge of Insurance business generally, the formation of a Library, and the promotion of social intercourse among those connected with the Insurance profession.

PRESIDENT—G. A. Angus, F.C.I.I., A.C.I.S., Commercial Union. VICE-PRESIDENTS—J. Robertson, F.C.I.I., Northern Archd. F. Rae, F.C.I.I., London and Lancashire Fire; G. W. W. Barclay, M.A., F.R.S.E., F.C.I.I., North British and Mercantile; Erskine M. Aird, Caledonian; George Newlands, F.C.I.I., Scottish Temperance; Robert Mackay, F.F.A., F.C.I,I., Northern.

Council.—N. S. Litster, Caledonian; Edwin Tait, F.F.A., North British and Mercantile; J. Macrae, Royal; M. Lunan, Provincial; Charles

Ingram, Century; W. Gall, Liverpool and London and Globe; W. D.

Nicholson, Alliance.

Hon. Treasurer—Charles P. Skene, Royal Exchange.

Hon. Librarian.—D. W. Johnston, Commercial Union. Hon. Secretary—Alex. B. Hughes, Assessor, 25 Crown Street, Aberdeen.

Hon. Auditors—M. Lunan, Provincial; W. Pirie, Standard.

THE INSURANCE INSTITUTE OF BELFAST. Founded 1907.

Objects. The cultivation of knowledge of Insurance business generally, the formation of a Library, and the promotion of social intercourse among the members of the Insurance profession in Belfast district.

President—George E. Taylor, F.C.I.I., Phanix.

PRESIDENT—George E. Taylor, F.C.I.I., Phanix.

VICE-PRESIDENTS—James Black, F.C.I.I., Royal; C. H. Bell, F.C.I.I., Ocean; James M'Connell, J.P., Atlas; James Williamson, F.C.I.I., London and Lancashire Life; W. M. Potterton, F.C.I.I., Scottish Widows; and A. S. Fraser, F.C.I.I., Commercial Union.

Council—A. S. Atkinson, F.C.I.I., State; E. O'Kane, Patriotic; W. J. Jefferson, Jr., Royal; W. W. Alderdice, Hand-in-Hand; George Crawford, Gresham Fire; H. B. Williamson, Employers' Liability; James Anderson, Commercial Union; James M. Scott, F.C.I.I., London and Lancashire Fire; and E. Bain, A.C.I.I., Union.

Befferson, Taylor, I. N. Belless, Champer, or Commercial W. J. Jefferson.

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Hon. Librarian-C. Mitford Martin, Scottish Widows'.

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THE INSURANCE INSTITUTE OF BIRMINGHAM.

Founded 1887.

Objects: The reading of papers and delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, and the promotion of social intercourse amongst the members of the profession in Birmingham and district.

The Ordinary Meetings of the Institute are held during October to March. The Annual General Meeting is held in April or May.

PRESIDENT-W. H. Turnbull, F.C.I.I., Royal.

VICE-PRESIDENTS—G. Hudson Greaves, F.C.I.I., Atlas; H. C. Saunders, F.C.I.I., Scottish Widows.

F.C.I.I., Scottish Wilders.

COUNCIL.—G. Barnfield, A.C.I.I., Guardian; H. J. Greening, F.C.I.I.,

Abstainers and General; G. F. Marshall, A.C.I.I., Royal Exchange;

W. J. Mumford, F.C.I.I., Snn Fire; A. E. Patrick, F.C.I.I., Alliance;

H. L. Porter, Yorkshire; H. J. Tapscott, F.C.I.I., Royal Exchange;

E. F. Williamson, F.C.I.I., Norwich Union.

HON. TREASURER—W. H. Knight, A.C.I.I., Northern.

HON. SECRETARY—Ernest Brooke, F.C.I.I., Assessor, 19 Temple Street,

Birmingham.

THE INSURANCE INSTITUTE OF BRIGHTON.

Established 1912.

Objects: The reading of papers and delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, and the promotion of social intercourse amongst the members of the profession, and generally conform with the objects of the Chartered Insurance Institute.

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F.C.I.I., Employers Liability.

Council—J. Appleton, Royal; H. B. Cox, Ocean; J. P. Green, F.C.I.I., Norwich Union; A. J. D. Leonard, F.C.I.I., Phænix; H. G. Row-

cliffe, Royal.

Hon. Treasurer-S. M. Lampard, Royal.

Hon. Librarian—A. Q. Browning, F.C.I.I., Essex and Suffolk. Hon. Secretary—H. A. Goldsmith, A.C.I.I., Ocean, 20 West Street, Brighton.

THE INSURANCE INSTITUTE OF BRISTOL.

Founded 1890.

Objects: The cultivation of knowledge on Insurance subjects, and social intercourse amongst members.

PRESIDENT—John S. Baker, F.C.I.I., London and Lancashire Fire.

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Fire; W. C. Dawson, Commercial Union; F. J. Giddings, Scottish Insurance Corporation; S. J. Gillingham, Northern; J. H. Goodwin, Union; F. W. Ridgway, British Law Fire; W. E. B. Westcott, Alliance; R. E. Witherspoon Employers' Liability; F. H. B. Yerbury, A.C.I.I., Phænix.

HON. TREASURER—W. Pearce Tapp, F.C.I.I., Sun Fire.

Assistant Hon. Treasurer—R. H. J. Kepple, F.C.I.I., Sun Fire.

Hon. Librarian-Wm. Blair, F.C.I.I., Northern.

Hon. Librarian—A. R. Squire, Northern.
Hon. Auditor—F. G. Newton, Commercial Union.
Hon. Secretary—James Bolton, F.C.I.I., Union, 24 Clare Street, Bristol.
Assistant Hon. Secretary—R. Weeks, A.C.I.I., Western.

THE INSURANCE INSTITUTE OF CARDIFF.

Founded 1905.

Objects: The cultivation of knowledge of Insurance business, the promotion of social intercourse, and the formation of a Library of books upon professional subjects.

President—Norman C. Plummer, F.C.I.I., Liverpool and London and Globe.

VICE-PRESIDENT--R. E. Thomas, F.C.I.I., Phanix.

Past Presidents—W. Southwell Jones, North British and Mercantile; Clement F. Taylor, F.C.I.I., Law Union and Rock, Bristol; G. F. Crabbe, Sun Life; T. E. Halfpenny, F.C.I.I., Yorkshire; A. D. K. Brown, F.C.I.I., Guardian, Manchester; John Phillips, F.C.I.I., North British and Mercantile; Llewelyn L. Pugh, F.C.I.I., Yorkshire; A. D. Goodwin, F.C.I.I., London and Lancashire Fire; C. H. Dean, Assessor.

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HON. TREASURER AND LIBRARIAN-W. Evan Lloyd, F.C.I.I., Sun Fire.

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HON. SECRETARY—W. J. Rice, Norwich Union Fire, 6 Working Street, Cardiff.

Assistant Hon. Secretary—F. J. Tucker, Norwich Union Fire.

THE INSURANCE INSTITUTE OF DUNDEE.

Founded 1909.

Objects: The cultivation of knowledge of Insurance business generally, the formation of a Library, and the promotion of social intercourse among those connected with the Insurance profession.

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VICE-PRESIDENT—James Kinloch, F.C.I.I., London and Lancashire Fire.
COUNCIL—T. W. Robertson, F.C.I.I., State; T. E. Suttie, F.C.I.I., North
British and Mercantile; W. Myles, Liverpool and London and Globe;
A. T. Oswald, Royal.

Hon. Auditors—A. M. Simpson, State; A. Wilson, London and Lancashire Fire.

Hon. LIBRARIAN—A. Marquis, A.C.I.I., North British and Mercantile.

Hon. Treasurer—G. A. Edmunds, F.C.I.I., Liverpool and London and Globe.

RECREATION COMMITTEE—P. Rosie, Scottish Provident; W. Myles, Liverpool and London and Globe.

Hon. Secretary—W. S. Whyte, Norwich Union Insurance Offices, 20 Meadowside, Dundee.

THE INSURANCE SOCIETY OF EDINBURGH.

Founded 1901.

Objects: The cultivation of knowledge of Insurance business generally (excluding Actuarial, Mathematical, and other cognate subjects, these being already provided for by the Faculty of Actuaries); the formation of

a Library of professional works for the use of Members and Associates; and the promotion of social intercourse among those connected with the Insurance profession.

PRESIDENT—T. M. Gardiner, F.C.I.I., Edinburgh Life.

 PRESIDENT—T. M. Gardiner, F.C.I.I., Edutburgh Life.
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THE INSURANCE AND ACTUARIAL SOCIETY OF GLASGOW.

Founded 1881.

Objects: (1st) The promotion of the study of the principles of Fire and Life Assurance, and of Assurance against other contingencies. (2nd) The consideration of all subjects to which the doctrine of probabilities may be applied, as well as the best methods of collecting and applying statistics. (3rd) The consideration of questions bearing on social science or political economy. (4th) The formation of a Library of professional works for the use of Members.

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THE INSURANCE INSTITUTE OF HUDDERS-FIELD AND HALIFAX.

Founded 1913.

Objects: The objects of the Institute shall be the reading of papers and delivery of lectures by Members and Associates, or Experts, not Members or Associates, upon subjects connected with Insurance business, the discussion of all questions relating thereto, and the formation of a Library for the use of Members and Associates, and, generally, the promotion of social intercourse amongst the members of the Insurance profession.

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THE INSURANCE INSTITUTE OF HULL.

Founded 1913.

Objects: The cultivation of knowledge relating to all Insurance subjects, the formation and maintenance of a Library, and the promotion of a good understanding amongst the members of the Insurance profession.

PRESIDENT—H. C. Arding, F.C.I.I., Phanix.

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THE INSURANCE INSTITUTE OF IPSWICH AND SUFFOLK.

Founded 1913.

Objects: The objects of the Institute shall be the reading of papers and delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, the formation of a Library for the use of Members and Associates, and the promotion of social intercourse amongst the members of the Insurance profession, and generally to conform with the objects of the Chartered Insurance Institute.

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Founded 1885.

Objects: (1st) The promotion of the study of the principles of Fire and Life Assurance, and of Assurance against other contingencies. (2nd) The consideration of all subjects to which the doctrine of probabilities may be applied, as well as the best methods of collecting and applying statistics. (3rd) An organisation for any purpose necessary for the requirements of the profession. (4th) The promotion of a good understanding amongst the members of the Insurance profession in Ireland.

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THE INSURANCE INSTITUTE OF LEICESTER.

Founded 1914.

Objects: To be a local Insurance Institute approved by the Council of the Chartered Insurance Institute, and to adopt so far as applicable the objects of that Institute as defined in its Charter.

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THE INSURANCE INSTITUTE OF LIVERPOOL.

Founded 1907.

Objects: The cultivation of knowledge of Insurance business generally, the formation of a Library, and the promotion of social intercourse among those connected with the Insurance profession.

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Founded 1907.

Objects: The cultivation of knowledge and information in all matters relating to the various branches of Insurance by means of— (α) The reading of papers or delivery of lectures upon technical or other subjects. (b) The awarding of prizes for papers of merit written by Members and Associates. (c) The circulation of a Journal containing articles of technical and general interest contributed by Members and Associates. (d) A Reference Library and Reading Room and a Lending Library. (e) A Museum containing specimens of Home, Foreign, and Colonial Products, Models, Parts, Drawings and Photographs of Machinery, Appliances, and other objects of interest.

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THE INSURANCE INSTITUTE OF MANCHESTER.

Founded 1873.

Objects: The cultivation of knowledge relating to all Insurance subjects, the maintenance of a Library, the promotion of a good understanding amongst the members of the Insurance profession in Manchester, and also, so far as may be practicable, the promotion of the objects of the Chartered Insurance Institute.

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THE INSURANCE INSTITUTE OF NEWCASTLE-ON-TYNE.

Founded 1896.

Objects: The promotion and cultivation of a thorough knowledge of Insurance business by means of the reading of papers, the delivery of lectures upon subjects connected therewith, the discussion of questions relating thereto, the formation of a Library, the inspection of risks and in any other way which may be deemed desirable, and, generally, the promotion of social intercourse amongst the members.

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THE NORTHAMPTON AND BEDFORD INSUR-ANCE INSTITUTE, NORTHAMPTON.

Founded 1908.

Objects: The reading of papers and delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, and the promotion of social intercourse amongst the members of the profession.

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THE INSURANCE INSTITUTE OF NORTH STAFFORDSHIRE.

Founded 1909.

Objects: The cultivation of knowledge of Insurance business generally, the formation of a Library, and the promotion of social intercourse among those connected with the Insurance profession.

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THE INSURANCE INSTITUTE OF NOTTINGHAM.

Established 1898.

Objects: The reading of papers and the delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, and the promotion of social intercourse amongst the members of the profession in Nottingham and district.

PRESIDENT—H. A. Thomas, F.C.I.I., North British and Mercantile. VICE-PRESIDENTS—G. H. Boyd, Law Union and Rock; F. S. Molyneux,

F.C.I.I., Royal.

Council.—J. W. Foster, F.C.I.I., Scottish Insurance Corporation; T. Henshall, A.C.I.I., Ocean; W. D. S. Kirkham, Alliance; H. W. Saunderson, F.C.I.I., Northern; *W. H. Macdermott, F.C.I.I., Alliance, *H. Taylor, F.C.I.I., Royal Exchange; *J. E. Littlewood, F.C.I.I., Scottish Provident Institution; *W Clarkson, A.C.I.I., Norwich Union Fire.

* Ex-officio.

HON. TREASURER--F. Hill, Norwich Union Fire.

HON. SECRETARY-L. J. Towle, F.C.I.I., Atlas, 10 Low Pavement, Nottingham.

THE INSURANCE INSTITUTE OF PERTH.

Established 1911.

Hon. President.—F. Norie-Miller, Esq., J.P., F.C.I.I., General Accident. Vice-Presidents.—J. Mayhew Allen, F.I.A., General Accident; Alex. S. Calder, F.C.I.I., General Accident; James Hood, City Life.; A. H.

Young, Solicitor.

Council.—A. P. Skinner, Royal; John P. M'Intosh, General Accident; S. Archbold, General Accident; R. M. Clark, General Accident; W. M. Graham, General Accident; E. Natuna Taylor, A.C.I.I., Solicitor; T. R. Curtis, General Accident; C. H. Clarke, A.C.I.I., General Accident.

AUDITORS-W. H. Strike, General Accident; Wm. Paton, Junr., General

Hon. Librarian—Harry Clarke, General Accident.

HON. TREASURER—Wm. Murray, General Accident.
HON. SECRETARY—A. Gibbon Thomson, F.C.I.I., General Accident,
General Buildings, Perth.

THE INSURANCE INSTITUTE OF SHEFFIELD.

Established 1911.

Objects: The cultivation of knowledge and information in all matters relating to the various branches of Insurance, the formation of a Reference Lending Library, and advancement of the status of the Insurance profession and the promotion of social intercourse among the members.

President—G. A. M'Kean, F.C.I.I., Commercial Union.

VICE-PRESIDENTS—J. E. Baker, Pridential; John D. Hill, F.C.I.I., Alliance; E. W. Milburn, F.C.I.I., Yorkshire.

COUNCIL—H. F. Brooking, Yorkshire Coal Owners' Indemnity Company;
F. Chambers, National Boiler; E. G. Hawkswell, Yorkshire; John H. Pindar, A.C.I.I., Norwich Union Fire; H. T. Portway, Atlas; G. E. Scott, A.C.I.I., Ocean; W. Morris Smith, Law Accident; E. J. Thomas, Royal.

Hon. Treasurer—A. E. Unitt, A.C.I.I., Cur and General. Hon. Librarian—Louis Phillips, Alliance.

Hon. Secretary—Lewis E. Pughe, Alliance, 35 George Street, Sheffield.

THE INSURANCE INSTITUTE OF SOUTHAMPTON.

Founded 1913.

Objects: The objects of the Institute shall be the reading of papers and delivery of lectures upon subjects connected with Insurance business generally, the discussion of all questions relating thereto, and the promotion of social intercourse among the members of the profession, and generally conform with the objects of the Chartered Insurance Institute.

President—V. Chester Newman, F.C.I.I., Law Accident.

VICE-PRESIDENTS—Councillor McDonnell, Provident Clerks; A. L. Ricketts,

General Accident; Dixon Burton, Alliance.
COUNCIL—G. Travers Biggs, F.C.I.I., Sun Fire; R. A. Chapman, Royal
Exchange; P. Coombs, Car and General; A. H. Green, Sun Fire;
C. Haws, Yorks and United Legal; W. L. Pike, Scottish Union and
National; S. A. Robinson, Royal Exchange; George F. Stewart,
Alliance; A. C. Tait, Pearl.

Hon. Secretary—A. W. G. Pritchard, Eagle. Hon. Treasurer—C. Rolfe, Guardian.

HON. LIBRARIAN-F. Long, Ocean.

THE INSURANCE INSTITUTE OF SWANSEA.

Founded 1913.

Objects: The objects of the Institute shall be the cultivation of knowledge on Insurance subjects, and social intercourse amongst members.

President—Wm. B. van Homrigh, Alliance.

PAST PRESIDENT—Edward Rees, London and Lancashire Fire.

COMMITTEE—W. R. Crabb, Employers' Liability; R. L. Gardner, General Accident; A. E. Morgan, Scottish; W. R. Radcliffe, Royal; D. C. Rose, General Accident.; C. R. Smale, General Accident; L. J. A. Gay, Welsh; W. E. Price, North British.

HON. SECRETARY AND TREASURER-Tom A. Davies, Sun Fire Office, 7/8

Oxford Street, Swansea.

THE INSURANCE INSTITUTE OF YORKSHIRE. LEEDS.

Founded 1888.

Objects: The delivery of lectures on subjects connected with Insurance business, the discussion of questions relating thereto, and, generally, the promotion of social intercourse amongst the members of the Insurance profession in Yorkshire.

PRESIDENT—D. H. Gordon Smith, F.C.I.I., Scottish.

VICE-PRESIDENTS—E. Bagshaw, F.C.I.I., late *Phænix*; F. Bingham, F.C.I.I., *British Law*; E. A. Birks, F.C.I.I., *Yorkshire*; A. H. Cowpe, F.C.I.I., *Royal*; J. Dodd, F.C.I.I., *Royal*: A. Moorhouse, F.I.A.,

F.C.I.I., Royal; J. Dodd, F.C.I.I., Royal; A. Moorhouse, F.I.A., F.C.I.I., Friends' Provident.

COUNCII.—W. E. Clegg, F.C.I.I., Century; F. C. Cooke, F.C.I.I., Phænix; H. E. J. Dalton, A.C.I.I., Sun Fire; P. H. Exell, F.C.I.I., Liverpool and London and Globe; J. Hahnel, Scottish Union and National; R. B. James, F.C.I.I., State; G. E. Martin, A.C.I.I., Atlas; W. E. Metcalf, A.C.I.I., Railway Passengers; Geo. Potter, A.C.I.I., Sun Fire; Hy. Smith, Alliance; H. R. Sutsliffe, A.C.I.I., Century; C. G. Vaughan, Ocean.

Hon. Treasurer—A. Barbour, London and Lancashire Fire.

Hon. Librarian-F. Kershaw, Sun Fire.

HON. EDUCATION SECRETARY--Hy. Smith, Alliance.

Hon. Auditors—A. C. Day, Abstainers and General; C. R. Riley, Yorkshire.

Hon. Secretary—W. A. Borland, F.C.I.I., Law Union and Rock, 2 East Parade, Leeds.

Assistant Hon. Secretary—J. W. Packer, Law Union and Rock.

COLONIAL INSTITUTES

AFFILIATED WITH

THE CHARTERED INSURANCE INSTITUTE.

THE INSURANCE INSTITUTE OF THE CAPE OF GOOD HOPE.

Established 1899.

PRESIDENT-Wm. Elliott, Junr., Southern.

VICE-PRESIDENT—F. C. Kirk, Liverpool and London and Globe.

VICE-FRESIDENT—F. C. KIFK, Liverpool and London and Globe.
COUNCIL—H. S. Clark, Northern; G. C. M'Laren, F.F. A., S.A. Mutual;
R. H. Mitchell, Southern; L. E. Bye, South British; A. M'Guffle,
Scottish Union and National; J. A. E. Markus, Gresham; J. Gibson
Young, Atlas; B. Humberstone, North British and Mercantile; F. W.
Bell, Manufacturers' Life; C. R. S. Walker, Commercial Union.
HON. SECRETARY AND TREASURER—Wm. Mathieson, South African
Association Chambers, 6 Church Square, Cape Town. 1.O. Box 486.

THE INSURANCE INSTITUTE OF NEW SOUTH WALES, SYDNEY.

Founded 1884.

PRESIDENT—Robert Thodey, F.I.A., Australian Mutual Provident Society. VICE PRESIDENT—M. De Chateaubourg, Century.

COMMITTEE—A. M. Eedy, H. J. Emmis, W. E. Gates, H. G. L. Harrison, J. S. Inch, A. W. H. Padfield, F. J. Pigg, F. W. Walton.

Hon. Treasurer—A. T. Anderson, A.I.I.A., A.M.P. Society, 87 Pitt Street, Sydney.

HON. AUDITOR-J. Bannon.

Secretary—F. Cox, Fire Underwriters' Association, Royal Exchange, Bridge Street, Sydney.

THE INSURANCE INSTITUTE OF TORONTO.

Founded 1899.

Hon. President—Col. W. C. Macdonald, Confederation Life Association. President—G. B. Woods, Continental Life.

VICE-PRESIDENT—A. E. Blogg, London and Lancashire Fire.

Council.—The Past Presidents and C. H. Fuller, Continental Life; J. B. M'Kechnie, Manufacturers' Life; A. H. Rodgers, Norwich Union Fire; H. A. Sherrard, Western; C. P. Muckle, Excelsior Life; D. E. Kilgour, North American Life; W. A. P. Wood, Canada Life; H. W. Crossin, Employers' Liability; J. G. Parker, Imperial Life; P. C. Keys, British America; A. W. Goddard, Canadian Fire Underwriters'; C. H. Neely, Ocean Accident and Guarantee Corporation; T. H. Hall, General Accident Fire and Life Assurance Corporation Limited.

Secretary and Treasurer—Clifford Elvins, Imperial Life of Canada.

LIBRARIAN—V. R. Smith, Confederation Life Association.

EXECUTIVE COMMITTEE—Geo. B. Woods C. Elvins, V. R. Smith, A. E. Blogg.

EDUCATIONAL COMMITTEE—W. A. P. Wood, A. W. Goddard, G. C. Moore (Convener), J. B. M'Kenzie, A. E. Blogg, E. Willans.

Entertainment Committee-J. G. Parker, Arthur Brown, F. W. White, D. E. Kilgour.

THE INSURANCE INSTITUTE OF THE TRANSVAAL.

President—F. J. Russell, Railway Passengers.

Vice-President—A. Ritchie, National Mutual of Australasia.

Council—S. H. Cullis, North British and Mercantile; G. C. Hobson, London and Lancashire; W. L. Hope, Royal; H. L. James, South British; P. P. Macindoe, Liverpool and London and Globe; W. E. Russel, Alliance; J. H. Oldfield, Southern Life; E. E. Wilkinson, North British and Mercantile; R. Connew, Royal Exchange.

Hon. Secretary and Treasurer—Thos. S. Adams, 3 National Bank Buildings, Simmonds Street, Johannesburg.

THE INSURANCE INSTITUTE OF VICTORIA, MELBOURNE.

Established 1884.

PRESIDENT—Thomas Lockwood, United.

VICE-PRESIDENT—James Dillie, Royal.

COMMITTEE—B. Finnigan, London and Lancashire; James Haverty, Victoria; H. W. Pownall, Australian Mutual Provident; D. N. Trenery, Atlas.

Secretary and Treasurer—E. E. Vines, Colonial Mutual Buildings, 60 Market Street, Melbourne.

INSURANCE CLERKS' ORPHANAGE.

The object of the Institution is to maintain and educate orphan or necessitous children of Clerks and Officials of Insurance Companies who were Members of the Orphanage, by placing such children at selected schools, and making money grants for their clothing. Children are eligible between the ages of 6 and 11, and may continue to receive the benefits until they reach the age of 16.

PRESIDENT—The Hon. N. Charles Rothschild.

Vice-Presidents—Edward Baumer, F.C.I.I., Northwood, Middlesex; George H. Burnett, F.C.I.I., Hampstead; John Coles, Chairman, Clerical, Medical and General Life Assurance Society; C. G. Fothergill, Director, London and Lancashire Fire Insurance Co., Ltd; H. Ernst Hall, J.P., Iver Heath, Bucks.; Robert Lewis, F.C.I.I., Alliance Assurance Co., Ltd.; Marlborough R. Pryor, Director, Sun Insurance Office.

CHAIRMAN—Samuel J. Pipkin, F.C.I.I., Atlas Assurance Co., Ltd. Deputy-Chairman—O. Morgan Owen, F.C.I.I., Alliance Assurance Co.,

Office—65 Watling Street, London, E.C. Secretary—G. H. Whiteman, A.C.I.I.

Members and Subscribers may commence their Annual Subscriptions at any time, and such Subscriptions will be renewable on one of the following dates, viz.:—1st February, 1st May, 1st August, or 1st November, whichever is nearest to the date on which the first Subscription is paid.

NOTE.—5s. annually qualifies for Membership. £3 3s. in one sum qualifies for Life Membership.

THE CHARTERED INSURANCE INSTITUTE.

THE Nineteenth Annual Conference (the fourth of the Chartered Insurance Institute) was held at De Keyser's Royal Hotel, London, on Friday, 4th June, 1915. Mr. George E. Mead (Manager and Secretary, Sun Insurance Office), President of the Institute, occupied the chair, and there were present 54 members as recorded in the attendance book.

After the adoption of the minutes of the last Conference, the Secretary read the following

REPORT OF THE COUNCIL FOR THE YEAR 1914-15.

The Council has much pleasure in submitting its Report for the year 1914-15. There has again been an increase in the number of Local Institutes, those at Hull and Leicester having received the approval of the Council during the year. The total number of Local Institutes is now 27, showing an increase of 9 since the granting of the Royal Charter, and the total membership is 5,750. There has been no addition to the number of Affiliated Institutes, of which there are five at the present time. The activities of the Institute, which the Council had every reason to anticipate would be enlarged during the year, have been partially suspended owing to the outbreak of war. The first difficulty which presented itself was the question of the 1915 examinations. It was found that a very large number of the officials withdrawn from the Insurance Companies to serve with the Forces of the Crown were identical with those who, under happier circumstances, would have presented themselves for the examinations of the Institute. It was felt that the students who remained would have their time fully occupied with the additional office work imposed upon them by the withdrawal of their colleagues, and that for a similar reason the senior officials

of the Offices, who are responsible for the setting and checking of the examination papers and the conduct of the lectures and classes, could not devote the necessary amount of time to the work. For these reasons, the Council, after a full consideration of the whole question, and after consultation with the Clerk to the Privy Council, finally decided upon the abandonment of the examinations.

The model form of Constitution which was referred to in the last Report has now been completed. It is intended that the adoption of this model form shall be a condition of approval in the case of new Institutes, and the Council venture to express the hope that all existing Institutes will see their way to adopt it as soon as practicable.

114 candidates entered in Part I. of the examinations, for which Part the Institute accepts the certificates of other examining bodies. 321 certificates have been accepted in the following subjects, viz.:—Chemistry 43, Electricity 32, Book-keeping 76, Mathematics 96, Geography 74. The Report of the Examiners Committee will be submitted to the Conference.

Substantial additions have been made to the General Prize Fund, which was initiated by Mr. A. Player Fedden, by the following Offices and gentlemen:—

					£	s.	d.
Mr. J. A. Cook -	-	-	_	_	50	0	0
Mr. D. C. Haldeman	-	-	-	-	50	0	0
Mr. Jas. Hamilton	-	-	-	-	50	0	0
Mr. Geo. E. Mead	-	-	-	-	50	0	0
State Assurance Com	pa	ny, Limit	ted	-	26	5	0
Mr. Charles Alcock	-	-	-	_	25	0	0
Mr. E. Baumer -	-	-	_	-	25	0	0
Mr. W. E. Blake	-	-	_	-	25	0	0
Mr. John Large	-	-	-	-	25	0	0
Mr. Jos. Powell	-	-	-	-	25	0	0
Royal Exchange Assi	ura	nce	-	-	25	0	0
Mr. W. T. Maudsley	-	-	-	-	10	10	0
Mr. G. T. Mills -	_	-	-	-	10	10	0
Mr. Herbert Lewis	-	-		-	10	0	0
Mr. Hugh Lewis	-	-	_	-	10	0	0
Mr. Walton Clarkson		-	-	-	2	2	0
Messrs. Thos. Howell	&	Compan	5	-	1	1	0

In order to permit of prizes of £20 being awarded without encroaching upon the capital sum, Mr. Rutter very kindly made a further donation of £7 10s. 7d. to the Fund which bears his name.

The Report of the Publications Committee will be presented to the Conference. The Seventeenth Volume of the Journal contains sixteen papers, and the high standard of the work is in every way maintained.

The Treasurer's Statement of Accounts for the year ending 31st December, 1914, duly audited and certified, will be submitted to the Conference.

A statement as to the progress of the Insurance Clerks' Orphanage will also be communicated to the Conference.

The Council wish to offer their thanks to the donors of the following publications which have been received during the year:—

The Quarterly Journal of The Institute of Actuaries, from the Council.

The Transactions of The Faculty of Actuaries, from the Council.

The Post Magazine and Insurance Monitor, weekly from the Publishers.

Insurance, monthly from the Publisher.

The Searchlight, monthly from the Publishers.

The Bulletin of Toronto, monthly from the Publishers.

Proceedings of the Sixth Conference of the Insurance Institute of America.

Proceedings of the Thirty-eighth Annual Meeting of the Fire Underwriters' Association of the Pacific, from the Secretary.

Series of Addresses delivered before the Insurance Society of New York, from the Secretary.

Reports of the Insurance Institutes of the Cape of Good Hope and New South Wales.

1914-15 Calendar of the Glasgow Athenæum Commercial College, from the Director of Studies.

Building Construction in Relation to Fire Hazard, a Prize Essay by Mr. J. H. Matthews, London, from the Essayist.

Report on the Police Pension Fund of the City of New York, 1913, from Mr. F. L. Hoffman, Statistician to the Prudential Insurance Company of America. Average Cost of Claims Settlements under the W. C. Act, 1906, by Wm. T. W. Wells, from the Author. Post Magazine Almanac, 1915, from the Publishers.

The Council wish again to express their thanks to the various Committees and their Secretaries for their services during the past year. In conclusion, the Council wish to express their indebtedness to the President for his services to the Institute during his term of office.

The President (Mr. George E. Mead) then addressed the Conference as follows:—

Gentlemen,—When you did me the honour to elect me President of the Chartered Institute last June, there was no indication that two months forward the world would have entered upon a war the extent and circumstances of which would prove to be without precedent. Almost immediately after the Newcastle Conference I took a short but delightful holiday in France and Switzerland, and all was peaceful. There was no suspicion or distrust, no sign of emnity as between citizens of different countries, and all were bent upon recreation and enjoyment. Everywhere were indications of industry and prosperity, and the country people offered that cheerful and courteous welcome to visitors from abroad so characteristic of them.

There was every prospect that the Institute might continue and enlarge its activities, and that the new President's opportunities would be considerable, whatever his capacity to use them might be. The programme of work for the coming year included many elements of construction and reform, and although he appreciated the magnitude of the task before him I may say he was hopeful that, with the brilliant examples of his predecessors before him and the certain anticipation that he would enjoy the loyal support of the Council, he would be in a position to leave office with the consciousness that his labour and influence had not been in vain. But with the fateful 4th of Angust came the conviction that this crisis in the history of the world would

have a far-reaching effect upon the career of the Institute. The storm that rocks the tree moves a world in every leaf. and this war of all others in a tremendous measure has had its influence upon every son and daughter of the Empire, and will have for generations yet to come. The call to arms was universal and met with a ready response, and to the glory of the Insurance profession no other body of men offered themselves with greater patriotism and eagerness to defend their homes and their country. The Insurance Offices, with wholehearted generosity, made it as easy as possible for men in their employment to join the Navy and Army. It is only right to pay this tribute now and here to the Directors who unstintingly and immediately foresaw and provided against some practical difficulties which might stand in the way of recruitment, by continuing to pay salaries to members of their staffs on service and keeping their places open against their return from the war. unqualified confirmation of these measures by the Shareholders of the Companies is also worthy of grateful and appreciative reference.

It may probably be taken that at least one-third of the whole body of Insurance officials have offered their lives for their country, and, in view of the large proportion of numbers remaining being above or below military age, this proportion is very significant. It may also be assumed generally that the students' section of Members of the Institute are within the military age. The Local Institutes were thus confronted with a prospect of classes without students, and for the same reason there could be no expectation of students sitting for examinations of the Chartered Institute. Moreover, it was anticipated that the depletion of the staffs of the respective Companies would place such a strain in office work upon those who, apart from their official engagements, are lecturers and examiners as would make the examinations impossible. The subject was carefully considered, and the Council reluctantly decided, subject to the sanction of the Privy Council as required under the Charter, to suspend examinations for the year. I have dealt with this feature specifically because examinations by the Chartered Institute, in conjunction with the classes and lectures of the Local Institutes, form so important an element in the educational work of the Chartered Institute.

It should be explained that at the Conference at Newcastle the Insurance Society of Edinburgh most graciously invited the Chartered Institute to meet the following year in that ancient, important, and beautiful city, and the invitation was accepted with cordial gratitude. As the year wore on it was felt that the Conference would be shorn of its glory, and that in the nature of things festivities would be out of the question, and in these circumstances our Edinburgh friends suggested that, subject to the Council of the Chartered Institute being of the same way of thinking, the invitation should be postponed until a more favourable opportunity of offering a full exercise of their hospitality should present itself, and it was hoped that this might be in 1916. Council concurred in this suggestion, appreciating the considerate spirit in which it had been made, and the Members of the Conference will doubtless confirm the arrangement. As our proceedings were to be of a purely business character it was considered expedient that they should be conducted in London, and it will doubtless be agreed amongst us that the usual dinner and social festivities would be out of place on this occasion in the midst of so much public and personal mourning and anxiety.

One of the tasks set by the Conference at Newcastle for the coming year was the reform of arrangements for examinations, but, for reasons which need not be repeated, the labours of the Committee specially appointed for the purpose were suspended. It will be remembered that this is a large subject, and will require more time and consideration than could be given to it in the present circumstances. To have attempted to formulate and discuss schemes in the absence of some Members of the Committee so closely concerned, and with all Members occupied in other directions, would have been a grievous mistake.

In this fallow year I am glad to refer to one instance in

which some practical work has been accomplished during the past year. We have now a model set of rules and bye-laws for Local Institutes. It was not found possible to adopt all the suggestions made by different Local Institutes, some of which were inconsistent with each other, but every effort was made to reconcile and adjust conflicting ideas. Whilst it is desirable that all Institutes should be uniform in constitution and regulations, and in course of time should adopt a common form, it is recognised that circumstances may delay this consummation, and the Council was anxious that in the meantime there should be freedom of action on the part of the existing Institutes. The adoption of the model rules will make easy the path of a new Local Institute, and there is no doubt that every effort will be made to fall in with the very careful conclusions at which the Council has arrived.

Mr. Player Fedden initiated a General Prize Fund for candidates for examination, and my immediate predecessor, Mr. Hamilton, whose absence this morning we much regret, and to whom our hearts go out with sympathy in his domestic anxiety, obtained several substantial additions to the Fund before he relinquished the Presidency. It is my pleasing duty to announce some further donations which have since been made through his influence:—

Mr. Roger Owen	-	-	-	-	£50
Mr. Pipkin -	~	-	_	-	50
Mr. Morgan Owen	-	-)	-	-	25
Mr. Wilson -	_	-		_ `	25

The Fund will in its operations stimulate our students in their work, and the prizes will be treasured by those who have earned them. \cdot

It must not be forgotten that the thoughtful and munificent gift of Mr. Rutter and the sum subscribed from the Fund raised to do honour to the memory of the late Mr. Stanley Brown paved the way for this development.

I beg that I may not be thought to overstep my functions in paying a well-deserved testimony to the loyalty of the members of the staffs of Insurance Offices. As I have said, there was a ready and hearty answer to the call of those in

authority on the part of members of the Territorial Forces and recruits in the special body known as Kitchener's Army, and we know on good authority that they earned high commendation for their splendid adaptation to an unaccustomed life of hardship and peril. Apprehension which might previously have been felt that our large civil population after generations of comparative peace had grown soft have been completely dispelled, and we now realise that the fibre of the nation is still as tough and adaptable as ever. who, because of age or other disqualifications for warriors' work, remain at their posts in the Offices have distinguished themselves in their zeal and in their loyalty to the Companies, and voluntarily have served early and late to keep abreast of the demands upon their energies. brother managers will not think I am taking too much upon myself when I say that this is the universal experience, and this acknowledgment is of immense significance and in sharp contrast to the action of workers in some trades and callings who have thrown down their tools and put obstructions in the way of their fellow-workers who are fighting for the sanctity of our homes. I have put some constraint upon myself in speaking of the war because it seems to dominate all our thoughts, and it would not be appropriate to enlarge upon it otherwise than in its bearings on the work and fortunes of the Chartered Institute and its Members. Political developments which led to the war, the prophecies which foretold the war, the measures taken or omitted to be taken against it, the horror of it, the abandonment of civilisation and time-honoured chivalry, and the descent into savage and barbarous methods on the one side of the contestall this has been systematically put in evidence and proved, and it will be for the historian to scientifically arrange the facts, and for posterity to pass judgment upon the degree of wickedness and cruelty which we should have scouted as impossible a short year ago.

May we hope that the ultimate outcome will bring with it some regeneration of our race, that it will discount the efforts of politicians who have striven for generations to make mischief between class and class in society, and that it will lead to soberness in thinking and living? May it exalt our national ideals and destroy the worship of materialism into which as a nation we have for so many years been drifting.

How will the longed-for-peace when it comes affect ourselves, and especially our younger Members? community of peril and suffering and bereavement has played and is playing its part amongst us. We remember the firm handshake, the farewell with which we older men bade God-speed to those clean-hearted and earnest young fellows who fearlessly, and yet seriously, set out to fight against deceit, oppression, and wrong, and we now have felt the silent and profound grief with which from time to time we have received intelligence of the loss of those who have fallen in battle, and whom we have learnt in so short a time to love as though they were of our own kith and kin. We have felt proud of the bright cheery letters we have received from the trenches, making little of hardships, and invariably hoping the Office is going on all right and the fellows left behind not overdone with the pressure of work. Are not these reflections in the nature of compensations? Melancholy consolations perhaps, but still those whom we shall welcome no more in this world gave of their best, and laid down their lives in love for their homes, their kindred, and their country. They died gloriously, and before us, their seniors, in the midst of strife have entered into Eternal Peace.

It is not too sanguine to look forward to a strengthening of the bond of union between those whom we hope to welcome home again and those for whom they fought. We can never forget their heroic self-sacrifice.

I am sure we are all glad that Mr. Pipkin is well enough to be amongst us this morning. You have heard from him in his usual clear and stirring style about the fortunes of the Orphanage, and I feel there is but little I can add to what has been said. There is no doubt that, unfortunately, we may expect large demands upon its resources in the near future, and this will justify the persistent building up of the

funds which has been the wise policy of the Chairman and Council throughout the existence of the Orphanage.

I am sadly conscious that my term of office has been barren in work and result, and I should be ungrateful if I did not acknowledge the unfailing sympathy and advice of the Council in all matters, and, in particular, I should wish to thank my predecessors and other members of the Executive Committee. I ought not to omit a tribute to the thoughtful and unostentatious solicitude for the welfare of the Institute shown by Mr. Humphry in his work in the office of Secretary.

We can put no date to the conclusion of the war, and while it lasts the activities of the Institute will of necessity be to some extent in a state of suspense; but however that may be, I know that my successor may rely upon the same kind and genial support as has cheered and comforted me in the exercise of my functions as your President during the past year.

INSURANCE CLERKS' ORPHANAGE.

REPORT OF THE GENERAL COMMITTEE TO THE THIRTEENTH ANNUAL GENERAL MEETING OF MEMBERS, TO BE HELD AT THE REGISTERED OFFICE OF THE INSTITUTION, 65 WATLING STREET, LONDON, E.C., ON FRIDAY, THE 4TH DAY OF JUNE, 1915, AT 5 O'CLOCK P.M.

THE General Committee have pleasure in submitting their Thirteenth Annual Report to the Members of the Orphanage, together with Account of Income and Expenditure and Balance Sheet for the year ending the 31st March, 1915.

It is with deep regret that they have first to record their sense of the great loss the Orphanage has sustained in the death of its President, the Right Honourable Lord Rothschild, G.C.V.O. Accepting the Presidency at the foundation of the Orphanage, he had continued in that capacity by his influence and gifts to promote the interests of the Institution until the day of his death on 31st March last. The Committee are sure that his memory will be held in warm and grateful regard by every member of the Orphanage.

The Committee have very great pleasure in announcing that the Hon. N. Charles Rothschild has kindly consented to occupy the position of President, and a formal resolution will be submitted to the Members accordingly.

The total income for the year was £5,970 17s. 3d., as against £3,694 15s. 1d. in the previous year.

The expenditure was £1,974 14s. 7d., being £1,857 12s. 4d. for grants and £117 2s. 3d. for working expenses. The surplus of the year was £3,996 2s. 8d., against a surplus in the previous year of £1,875 17s. 4d.

In accordance with the Articles of Association, the sum of £3,422 10s. 8d., being the amount of Life Members' Subscriptions, and Donations of £20 and upwards, has been added to the Capital Account, bringing it up to £21,089 7s. 2d., and the remainder of the surplus, £573 12s. has increased the Revenue Fund to £9,178 6s. 11d., leaving the Institution with Total Funds of £30,267 14s. 1d., as compared with £26,271 11s. 5d. at the end of the previous year.

Life Membership Subscriptions of £93 9s. were received from 16 new Life Members, and from 13 Annual Members in commutation of their future annual payments. Annual Members' Subscriptions amounted to £1,212 9s., of which £138 3s. 6d. was received from 534 new Members, the balance being renewals.

During the year 551 new Members were admitted, 16 of whom are Life Members, and the total membership stands at 4,845.

The Committee record with much pleasure and gratitude the receipt of a sum of £2,000 from the Directors of the Commercial Union Assurance Company as a donation from the Estate of the late Sir William Dunn, of which they are Trustees and Administrators.

The sale of Mr. George C. Morant's book, "Odds and Ends of Foreign Travel," referred to in last year's report, has produced a sum of £86 12s. 9d., which the author has generously given to the Funds of the Orphanage and for which the Committee are grateful.

Entertainments and other social functions have again contributed largely to the income for the year. Our thanks are specially due to the Ryder Boys Old English Comedy Company, to the Manchester Local Committee, and to the Insurance Profession generally in that city for the magnificent results of a series of Theatrical performances in April, 1914, which produced the largest sum yet received from such a function.

The complete list of amounts received from the various centres is as follows:—

Manchester—Theatrical Performances \pounds	461	15	6
Edinburgh—Rugby Seven-a-Side Sports	73	8	5
Belfast-Institute Smoking Concert £11 17 6			
Belfast—Donation from Institute 5 0 0			
	16	17	6
London—Football Match: "Motor Union" v.			
"Ocean"	13	18	4
Brighton—Institute Whist Drive £7 8 6			
Brighton—Collected Locally 4 9 4			
Brighton—Proceeds of Concert 2 0 0			
-	13	17	10
London-Insurance Offices' Football Association			
Concert	12	12	0
Aberdeen—Institute Smoking Concert	8	18	4
London—Collection at "General Accident" Luncheon			
(per Mr. J. G. Escott)	8	5	0
Nottingham—Institute Whist Drive	7	7	0
Huddersfield and Halifax—Don ation from Institute	2	2	0

During the year five Companies were added to the list of Contributors:—

Motor Union Insurance Company	£52	10	0
National Benefit Life and Property Assurance			
Company	26	5	0
Provident Clerks' and General Guarantee and Acci-			
dent Company (annual)	10	10	0
Nordisk Re-insurance Company of Copenhagen	5	0	0
Queensland Insurance Company (annual)	1	1	0

The following Companies have generously added to their former donations as follows:—

Employers' Liability Assurance Corporation (2nd			
donation)	£100	0	0
Fine Art and General Insurance Company (2nd			
donation)	100	0	0
North British and Mercantile Insurance Company			
(2nd donation)	100	0	0
Sun Life Assurance Society (2nd Donation)	100	0	0
British Law Fire Insurance Company (3rd donation)	52	10	0
Norwich Union Mutual Life Insurance Society (3rd			
donation)	50	0	0
Yorkshire Insurance Company (3rd donation)	50	0	0
State Insurance Company (first instalment of third			
£100)	25	0	0

Annual subscriptions were also received from:

Clerical, Medical and General Life Assurance Society	£10	10	0
English and Scottish Law Life Assurance Association	10	10	0
Equity and Law Life Assurance Society	10	10	0
General Life Assurance Company	10	10	0
Phœnix Assurance Company	10	10	0
Railway Passengers' Assurance Corporation	26	5	0
Skandinavia Re-insurance Company	5	0	0
Vulcan Boiler and General Insurance Company	25	0	0

The following is a full list of the Companies which have contributed since the foundation of the Orphanage:—

Alliance Assurance Company			£200	0	0	
Atlas Assurance Company			200	0	0	
British General Insurance Company			26	5	0	
British Law Fire Insurance Company			177	10	0	
Caledonian Insurance Company			200	0	0	
Car and General Insurance Corporation			50	0	0	
Century Insurance Company			50	0	0	
City Equitable Fire Insurance Company			52	10	0	
Clerical, Medical and General Life	Assur	ance				
Society (annual)			10	10	0	
Commercial Union Assurance Company			200	0	0	

C I Fr Om			0100	^	0
County Fire Office	•••	•••	£100	0	0
Eagle Insurance Company	•••	•••	100	0	0
Ecclesiastical Insurance Office	•••	•••	50	0	0
Employers' Liability Assurance Corporation			200	0	0
English and Scottish Law Life Assurance As			10	7.0	^
(annual)		•••	10		0
Equity and Law Life Assurance Society (an		•••	10		0
Essex and Suffolk Equitable Fire Insurance		ty	26	5	0
Fine Art and General Insurance Company		•••	200	0	0
General Life Assurance Company (annual)	•••	•••	10		0
Gresham Life Assurance Society	•••	•••	200	0	0
Guarantee Society	•••	• • •	25	0	0
	•••	•••	200	0	0
Hibernian Fire and General Insurance Com		•••	10		0
King Insurance Company		•••	25	0	0
Law Guarantee Trust and Accident Society			100	0	0
Law Union and Rock Insurance Company			200	0	0
Liverpool and London and Globe Insurance	e Comp	pany	200	0	0
Liverpool Victoria Légal Friendly Society			3	3	0
London and Lancashire Fire Insurance Con	npany		200	0	0
London and Lancashire Life and General A	Assura	nce			
Association			50	0	0
London and Midland Insurance Company			50	0	0
London Assurance Corporation			100	0	0
London Guarantee and Accident Company			- 50	0	0
35 · T 0			100	0	0
NE / NE / T		•••	52	10	0
National Benefit Life and Property					
Company			26	5	0
National Insurance Company of Great Brit			25	0	0
Nordisk Re-insurance Company of Copenh			5	0	0
North British and Mercantile Insurance C	_		200	0	0
Northern Assurance Company			200	0	0
Norwich Union Fire Insurance Society			200	0	0
Norwich Union Mutual Life Insurance Soci			200	0	0
Ocean Accident and Guarantee Corporation			200	0	0
Phænix Assurance Company		•••	200	0	0
Phœnix Assurance Company (annual)	•••	•••	10	10	0
Provident Clerks' and General Guarantee	 and A		10	10	U
dent Compâny (annual)			10	10	0
	•••	•••	100		
Provident Life Office	•••	•••	100	0	0
Queensland Insurance Company (annual)		11		1	0
Railway Passengers' Assurance Company (annua	•	26	5	-
Royal Exchange Assurance Corporation	•••	•••	205	0	0
Scottish Union and National Insurance Con			200	0	0
Skandinavia Re-insurance Company (annua	nı)	• • • •	5	0	0
Star Assurance Society	•••	•••	210	0	0
State Assurance Company	•••		225	0	0
Sun Fire Office	•••	•••	200	0	0
Sun Fire Office Sun Life Assurance Society	•••	•••	200	0	0
Union Assurance Society		•••	100	0	0
Vulcan Boiler and General Insurance	Comp	any			
(annual)	•••	•••	25	0	0

Warsaw Fire Office	 	 £50	0	0	
Westminister Fire Office	 	 100	0	0	
West of Scotland Insurance Office	 	 26	5	0	
Yorkshire Insurance Company	 	 150	0	0	

The sum of £4,372 2s. 8d. was invested during the year, making the total investments of the Orphanage at cost £29,893 12s. 1d., as against a market value, on 31st March, 1915, of £25,770.

During the year 6 new cases were admitted and 10 retired upon attaining the age limit, making the total number up to 67 children, for whom on the 31st March the General Committee were making grants at the rate of £1,812 1s. 4d. per annum for maintenance and education. A short summary of the cases is appended.

No applications for grants have yet been made in consequence of the War, although there are doubtless many members of the Orphanage who are serving their country abroad, all of whom we hope will return unharmed.

The General Committee take this opportunity of tendering their grateful thanks to the Members and especially to the Honorary Secretaries of the Local Committees in the Provinces, and to the Collectors in the London Offices, to whose unfailing energy a large share of the present position of the Orphanage is due.

Your Committee also desire once more to record their acknowledgments to the Committee of the London Salvage Corps for the use of their premises, and to the Honorary Auditors, Messrs. Price, Waterhouse & Co., for their valuable services.

We are also greatly indebted to the Insurance Press for their kindness in giving publicity to Orphanage matters.

The following gentlemen retire in accordance with the Articles of Association, and, being eligible, offer themselves for re-election, viz.:—Messrs. H. W. Andras, A. D. Besant, W. E. Blake, J. Headon Boocock, Albert D. Brookes, J. A. Cook, and Samuel J. Pipkin.

The retiring Auditors, Messrs. Price, Waterhouse & Co., have again kindly offered their services without fee, and will be submitted for re-election.

SAML. J. PIPKIN, Chairman.

INSURANCE CLERKS' ORPHANAGE.

INCOME and EXPENDITURE ACCOUNT for the Year ending 31st MARCH, 1915.

S ಣ

	#	1,857 12 9,178 6 3	£14,575 12
EXPENDITURE.	By Transfer to General Capital Account in accordance with the Articles of Association of the Orphanage £3,422 10 £3,422 10 £3,422 10 working Expenses, Stationery, Printing, Postages and Petties, &c	", Grants	,
INCOME.	To Balance brought forward from last Account £9,604 14 11 ,, Subscriptions from Life Members £93 9 0 ,, Donations (including proceeds of Entertainments, &c.) of £20 and	upwards 2,422 16 8 ,, Donations from Insurance Companies 906 5 0 3,422 10 8 ,, Annual Subscriptions from Members £1,212 9 0 3,422 10 8 ,, Danations from Insurance Companies ,, Donations (including proceeds of Entertainments, &c.) under £20; and Annual Subscriptions from Non-Members ,, Interest on Investments 930 13 7 ,, Interest on Investments 2,548 6 7	£14,575 12 2

01

INSURANCE CLERKS'

BALANCE SHEET,

Add Ar Subs	nount rece	ived during t	t March, 1914 the Year, being ons of £20 and	Life up-	666 16 6 422 10 8		
			re Account			£21,089 9,178	$\begin{smallmatrix}7&2\\6&11\end{smallmatrix}$
					/	/	
				/			

ORPHANAGE.

31st MARCH, 1915.

De Insection of each			
By Investments at cost:— £5,500 2½ per Cent. Consols	£5,055 7	5	
£1,200 Birmingham Corporation 3 per Cent. (1902) Stock	1,161 14	3	
£500 London County 3 per Cent. Consolidated Stock, 1920	465 7	3	
£500 Middlesex County 3½ per Cent. Stock, 1927-1947	485 1	0	
£500 Swansea Corporation 3½ per Cent. Stock,		6	
1930–1970	483 3 865 2	ő	
	946 6	5	
0000 C 1 01 C 1 041 1000 1000	789 11	0	
01 500 Clama 01 man Clamb Tunamibad Chaple	1,436 8	ő	
£1,000 Gold Coast 4 per Cent. Stock, 1939-1959	982 12	ő	
21,000 Gold Coast 4 per Cent. Stock, 1959-1959	904 14	U	
£1,300 Natal 3½ per Cent. Consolidated Stock,	1,253 2	0	
	1,253 2	U	
	401 10	6	
Inscribed Stock	481 18	O	
	498 3	6	
Inscribed Stock, 1930-1950	498 3	U	
£500 South Australian 3½ per Cent. Stock, 1926-	404 0	e	
1936	484 8	6	
£500 South Australian 33 per Cent. Inscribed	FO1 10	0	
Stock, 1934	501 19	6	
£500 Tasmanian 4 per Cent. Inscribed Stock,	400 0	0	
1940-1950	499 8	6	
£500 Victoria 4 per Cent. Inscribed Stock, 1920	512 12	0	
£1,000 West Australian 4 per Cent. Inscribed			
Stock, 1942–1962	980 14	6	
£1,000 Great Central and Midland 3½ per Cent.			
Guaranteed Stock	1,003 19	7	
£1,000 Great Western and Great Central 3½ per			
Cent. Guaranteed Stock	968 17	8	
£1,000 Great Western Railway 5 per Cent. Consoli-			
dated Preference Stock	1,368 6	0	
£1,000 London, Brighton and South Coast Railway			
5 per Cent. Consolidated Preference Stock	1,360 15	8	
£500 London and North Western Railway 4 per			
Cent. 1902 Preference Stock	477 10	9	
£1,000 North-Eastern Railway 3 per Cent. Deben-			
ture Stock	900 4	3	
£1,000 North Staffordshire Railway 3 per Cent.			
Preference Stock	764 10	2	
£1,100 Bengal-Napur Railway 4 per Cent. New			
Debenture Stock	1,101 10	6	
£1,000 East Indian Railway 3½ per Cent. Debenture	,		
Stock, 1937	953 7	3	
£500 Great Indian Penipsula Railway 3½ per			
Cent. Debenture Stock	465 14	3	
£1,000 South Indian Railway 4 per Cent. Regis-			
tered Debenture Stock	974 19	0	
Will Problem Supervisors			
£28,900			
	•		
£70 Annuity, Class "B," East Indian Railway,			
1953	1,670 17	2	
			£29,893 12 1
(Market Value 31st March, 1915, £25,770.)			,
Cook at Bank Comment Assaunt	6260 10	0	
Cook in hand	£369 10	8	
,, Cash in hand	4 11	4	
			£30,267 14 1

AUDITORS' CERTIFICATE AND REPORT.—We report to the members that we have examined the above Account of Income and Expenditure for the year ending 31st March, 1915, and the Balance Sheet as at that date, with the Books and Vouchers of the Institution, and having obtained all the information and explanations we have required, we are of opinion that such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Institution's affairs according to the best of our information and the explanations given to us and as shown by the Books.

We have verified the Investments appearing in the Balance Sheet.

PRICE, WATERHOUSE & CO., Honorary Auditors. 3 FREDERICK'S PLACE, OLD JEWRY, E.C., 20th May, 1915.

THE FOLLOWING STATEMENT SHOWS THE PROGRESS OF THE ORPHANAGE:-

Name of the second	Children Benefiting at 31st March	- 0	m w	14	54	29	32	40	45	54	63	71	67
Balance at	end of each year—Capi- tal and Revenue.	5,256	7,505 8,885	10,557	12,243	13,863	15,153	16,948	21,624	23,043	24,396	26,271	30,267
EXPENDITURE.	Working Expenses.	221	145	43	97	115	95	66	105	174	154	127	117
EXPE	Grants.	00 5	118	219	528	299	807	912	1,066	1,240	1,572	1,692	1,857
	Total of all Income. \mathcal{E}	5,486	1,645	1,935	2,311	2,405	2,189	2,807	5,847	2,834	3,079	3,694	5,970
	Total to Revenue.	1,064	1,063	1,246	1,373	1,594	1,557	1,634	1,806	1,950	2,213	2,515	2,548
	Interest.	24	205	566	355	376	413	477	586	718	778	830	931
DNS, &CC.	Donations under £20 and Subscriptions.	411	139	500	272	341	314	329	331	315	341	511	405
Subscriptions and Donations, &c.	Annual Members.	629	719	771	746	877	830	827	888	917	1,094	1,174	1,212
UBSCRIPTIONS	Total to Capital.	4,421	581	689	937	808	632	1,173	4,041	884	998	1,179	3,422
σ	Donations of £20 and upwards.	1,009	438	523	862	715	581	1,102	3,820	778	719	1,057	3,329
	Life Members,	3,412	991 143	166	75	93	50	71	220	106	147	122	93
	Number of Members.	2,007	2,50 4	2,604	2,626	2,733	2,742	2,843	3,158	3,380	4,004	4,466	4,845
	Year ending 31st March.	1903	1904	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915

PARTICULARS OF CASES RECEIVING THE BENEFITS OF THE ORPHANAGE ON 318T MARCH, 1915.

Father.	Inspector, County Fire, London. Clerk, Sun Fire, London. Local Secretary, Gresham Life, Liverpool. District Manager, State, Leeds. Clerk, Westminster Fire, London. Clark, Phenix, London. Branch Manager, Commercial Union. Clerk, British & Foreign Marine, Liverpool. Surveyor, Yorkshire, Glasgow. Clerk, Norwich Union Life, Bristol. Local Manager, Commercial Union. Glaims Assessor, United Legal, London. Clark, London and Lancashire Fire, Liverpool. Accountant, Norwich Union Fire, Norwich. Clark, Branch Manager, Economic, Birmingham. Branch Manager, Economic, Birmingham. Branch Manager, Economic, Birmingham. Clerk, General Life, London. Clerk, Westminster, London. Clerk, Norwich Union Fire, Norwich. Clerk, Worthampton. Clerk, Foreign Department, Law Union and Rock, London. Clerk, Foreign Department, Law Union and Rock, London. Accountant, Commercial Union, London. Accountant, Commercial Union, London. Accountumt, Rock, London.
Born.	January 30th, 1900 January 6th, 1900 July 28th, 1899 November 11th, 1900 November 29th, 1899 March 13th, 1901 June 29th, 1901 August 30th, 1901 August 30th, 1902 August 30th, 1902 August 2nd, 1903 March 12th, 1903 March 12th, 1903 March 12th, 1903 August 2nd, 1903 November 18th, 1903 May 31st, 1904 July 18th, 1904 July 18th, 1905 August 11th, 1903 August 11th, 1905 August 1st, 1905
Sex.	Boy
Admitted.	March, 1906 May, 1906 November, 1906 November, 1906 April, 1907 June, 1907 November, 1907 November, 1908 June, 1908 April, 1909 October, 1909 November, 1909 November, 1909 November, 1909 November, 1909 November, 1909 April, 1910 April, 1910 September, 1910 September, 1911 April, 1911 April, 1911 April, 1911 April, 1911 September, 1911 April, 1911 September, 1911 April, 1911 September, 1911 April, 1911 September, 1911 September, 1911 April, 1911 April, 1911 September, 1911 September, 1911 October, 1911 September, 1911

PARTICULARS OF CASES RECEIVING THE BENEFITS OF THE ORPHANAGE ON 31ST MARCH, 1915.—Continued.

Father.	Clerk, Thames and Mersey Marine, Liverpool. Clerk, Thames and Mersey Marine, Liverpool. Inspector, Scottish Provident, Liverpool. Inspector, Scottish Provident, Liverpool.	Clerk, Alliance Marine, Liverpool. Fire Superintendent, Hand-in-Hand, London.	Chief Accountant, Norwich Union Fire, Norwich Inspector, London and Lancashire Fire, Liverpool.	Claims Assessor, United Legal, London. Town Fire Superintendent, Guardian, London.	Inspector, Atlas, Loudon. Inspector, Atlas, Liverpool. Transector, Atlas, Tiverpool.	Clerk, N.; The British and Marcantile, London. Joint Branch Manager. Atlas. Glascow.	Joint Branch Manager, Atlas, Glasgow. Branch Manager. Economic Life. Birmingham.	Agency Superintendent, Star Life, London. Clerk, Alliance Marine, Liverpool.	Agency Superintendent, Star Life, London Inspector, North British and Mercantile, Manchester.	Inspector. Norwich Union Fire, Manchester Clerk, Union Marine, Liverpool.	Clerk, Union Marine, Liverpool Clerk, Commercial Union, London.	Clerk, Gresham Lite, London Fire Superintendent, General Accident, Glasgow.	Clerk, Ocean, London Assistant Secretary, General Accident, Perth.	Clerk, Alliance, Bristol Life Superintendent, Law Union and Rock, City Branch.	Inspector, London Guarantee and Accident, London. Inspector, London Guarantee and Accident, London.
Born.	March 23rd, 1902 December 8th, 1904 May 5th, 1902 January 29th, 1904	May 20th, 1900 March 22nd, 1905	April 6th, 1906 April 22nd 1906	July 10th, 1905 March 22nd, 1901	September 27 tm, 1901 March 23rd, 1903 May 6th 1905	May 8th, 1900 September 2nd, 1903	October 28th, 1906 January 15th, 1907	July 20th, 1902 July 28th, 1904	August 1st, 1907 June 7th, 1907	December 28th, 1905 November 23rd, 1902	February 21st, 1906 March 12th, 1907	July 30th, 1904	March 12th, 1902 June 17th, 1908	June 9th, 1903 May 6th, 1908	November 3rd, 1905 March 7th, 1907
Sex.	Boy Girl Girl	Boy Girl	Girl Boy	Boy Girl Por	Boy Girl	Boy Girl	Girl Girl	Boy Boy	Boy Boy	Girl Girl	Boy Boy	Girl	Girl Boy	Boy Girl	Girl Girl Bey
	::::	: :	::	: :	: : :	: :	: :	: :	: :	: :	: :	::	: :	: :	: :
Admitted.	December, 1911 December, 1911 January, 1912 January, 1912	March, 1912 May, 1912	May, 1912 June, 1912	July, 1912	September, 1912 September, 1912 Sentember, 1912	October, 1912 November, 1912	November, 1912 February, 1913	March, 1913 July, 1913	August, 1913 September, 1913	September, 1913 October, 1913	February, 1914	February, 1914 February, 1914	February, 1914 May, 1914	May, 1914 May, 1914	September, 1914 September, 1914 November, 1914

THE CHARTERED INSURANCE INSTITUTE.

Charter.

GEORGE by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the seas, King, Defender of the Faith, Emperor of India. To all to whom these presents shall come, GREETING:

WHEREAS the Voluntary Association or Society now existing and known as The Insurance Institute of Great Britain and Ireland hath Petitioned US for a Charter of Incorporation such as is in and by these Presents granted. AND WHEREAS WE are minded to comply with the Prayer of such Petition.

NOW therefore We of Our Special Grace, certain knowledge and mere motion, Do hereby for Us, our Heirs and Successors, will, grant, direct, appoint, and declare to the said Voluntary Association or Society as follows:—

1. The persons now Members of the said Voluntary Association or Society known as The Insurance Institute of Great Britain and Ireland, and all such persons as may hereafter become Members of the body corporate hereby constituted pursuant to or by virtue of the powers granted by these Presents, and their successors shall for ever hereafter be, by virtue of these Presents, one body corporate and politic by the name of The Chartered Insurance Institute, and by the same name shall have perpetual succession and a Common Seal, with power to break, alter, and make anew the said seal from time to time at their will and pleasure, and by the same name shall and may implead and be impleaded in all Courts, and in all manner of actions and suits, and shall have power to do all other matters and things incidental or appertaining to a Body Corporate.

- 2. We do also hereby for Us, Our Heirs and Successors, license, authorise, and for ever hereafter enable The Chartered Insurance Institute hereby incorporated, or any person on its behalf, to acquire any lands, tenements, or hereditaments whatsoever within Our United Kingdom of Great Britain and Ireland, and Our Colonies and Dependencies, but so that the lands, tenements, and hereditaments held by it shall not exceed at any one time in the United Kingdom the annual value of Three Thousand Pounds, and in any Colony or Dependency at any one time the annual value of One Thousand Pounds (such annual value to be deemed not to exceed the annual value thereof at the times of acquisition thereof respectively), and to hold the same in perpetuity, and from time to time to grant, demise, alienate, or otherwise dispose of the same or any part thereof.
- 3. And WE do hereby also for Us, Our Heirs and Successors, give and grant Our License to any person or persons, and any body, Politic or Corporate, to assure in perpetuity, or to demise to or for the benefit of The Chartered Insurance Institute, any lands, tenements, or hereditaments whatsoever within Our United Kingdom of Great Baitain and Ireland, and Our Colonies and Dependencies, so as the lands, tenements, or hereditaments held by it do not exceed at any one time the annual values aforesaid.
- 4. The objects and purposes for which The Chartered Insurance Institute (hereinafter called "The Institute") is hereby constituted are as follows:—
 - (a) To provide and maintain a central organisation for the promotion of efficiency, progress, and general development among persons employed in Insurance business, whether members of the Institute or not, with a view not only to their own advantage, but to rendering the conduct of such business more effective, safe, and scientific, and securing and justifying the confidence of the public and employers by reliable tests and assurances of the competence and trustworthiness of persons engaged in such business.
 - (b) To encourage and assist the study of any subjects bearing on any branch of Insurance.

- (c) To publish a Journal and any other matter deemed desirable by the Council of The Institute.
- (d) To form a Library for the use of members of The Institute.
- (e) To offer money or other prizes for essays or research in any subject bearing on Insurance.
- (f) To devise and impose means for testing the qualifications of candidates for the certificates of The Institute by examination in theory and practice or by any other actual and practical tests, and to grant certificates of qualification to the successful candidates.
- (g) To promote personal and friendly intercourse between members of The Institute; to hold conferences and meetings for the discussion of professional affairs, interests and duties, the reading of papers, and the delivery of lectures; to compile lists, registers, and records of events and proceedings of interest to the members; to issue copies of such lists, registers, and records from time to time to members of The Institute, and generally to collect, collate, and publish statistical or other information of service or interest to members of the profession.
- (h) To ascertain the law and practice relating to all things connected with Insurance, to collect and form a strong body of expert opinion with the view of obtaining the codification and amendment of the Acts relating to Insurance Companies, and to watch any legislation affecting the same.
- (i) To exercise professional supervision and control over the members of The Institute, to safeguard their interests and welfare, to further their advancement, and to promote whatever may lead to the improvement of the status of Insurance officials in general and the members of The Institute in particular.
- (j) To act as a means of communication between members or others seeking engagements in Insurance Offices, and employers desirous of employing them.

- (k) To assist necessitous members, and the widows and children and relatives of deceased members, and to act as treasurer and distributor of any benevolent fund or funds which may be contributed by members or others, and to make any contribution to any such fund or funds out of the income or assets of The Institute.
- (l) To purchase, rent, lease, hold, and dispose of any building or buildings to be used as a place of meeting for the members of The Institute or as a college, lecture or reading rooms or library, or for social purposes, or any other property, real or personal, for the advancement of the above objects or any of them.
- (m) To promote and encourage provision by the members against the contingencies of age, sickness, misfortune, and death, and to assist, financially or otherwise, towards such provision.
- (n) To do all such other lawful things as are incidental or conducive to the attainment of the above objects or any of them.
- 5. The Institute shall not carry on any trade or business, or engage in any transaction with a view to the pecuniary gain or profit of the members thereof. No member shall have any personal claim on any property of The Institute or make any profit out of his membership, except in the case of and as a salaried Officer of The Institute.
- 6. There shall be a Council of The Institute consisting, exclusive of ex-officio members, of not more than sixty members of The Institute, of whom two-thirds, or the nearest number to and not being less than two-thirds, shall be "elected" members and the remainder "nominated" members. Of the "elected" members, unless and until otherwise determined by the Bye-laws of The Institute, two shall be elected annually by each Local Institute approved and subscribing as specified in Clause 13 hereof, notice of such election having been given in writing to the Secretary of The Institute not less than fourteen days before the Annual Conference at which such election is to take effect. The

"nominated" members shall be nominated in each year by the "elected" members at or within twenty-one days after the holding of the Annual Conference, such nomination to be made by resolution to be passed by a majority of the elected members.

Subject as aforesaid, the manner in which the election and nomination of members of the Council shall be made, the period for which they shall hold office, and the regulations of their qualification, retirement by rotation or otherwise, and eligibility for re-election, and for filling any casual or other vacancy in their body, shall be such as the Bye-laws of The Institute for the time being shall prescribe.

The Council may act notwithstanding that, by any such casual or other vacancy, its constitution may temporarily not comply with the above requisites.

7. There shall be a President and two or more (not exceeding six) Vice-Presidents of The Institute. The said President and Vice-Presidents shall be elected in such manner and shall hold office for such period and on such terms as to re-election and otherwise as the Bye-laws for the time being of The Institute shall direct.

The President of The Institute shall be ex-officio President of the Council, and the Vice-Presidents of the Institute, the Treasurer of The Institute, the Secretary of the Examiners Committee, and the Secretary of the Publications Committee shall respectively be ex-officio members of the Council, but in such official capacities alone, and they shall not count for the purpose of any of the proportions hereinbefore mentioned.

- 8. The first Members of the Council of The Institute shall be:—
- J. HAROLD AYLWARD Royal Insurance Co., Ltd., Dublin.
- G. W. W. BARCLAY Branch Manager, North British and Mercantile Insurance Co., Aberdeen.
- JOHN BENNETT - Secretary, Scottish Insurance Corporation, Ltd., Bristol.
- ERNEST BROOKE - Assessor, Birmingham.
- A. M. CLYDESDALE Manager, Norwich Union Fire Insurance Society, Ltd., Glasgow.

JAMES ALLAN COOK	- General Manager, Scottish Union and National Insurance Co., Edinburgh.
J. H. C. DAWES -	- District Manager, Liverpool and London and Globe Insurance Co., Ltd., Northamp- ton.
ALEX. DICK	- Scottish Insurance Corporation, Ltd., Edinburgh.
HUGH C. EVANS -	- Local Manager, Royal Insurance Co., Ltd., Manchester.
A. S. FRASER -	· Branch Manager, Commercial Union Assurance Co., Ltd., Belfast.
JAMES B. GIBSON, C.A.	- Ocean Accident & Guarantee Corporation, Ltd., Glasgow.
H. R. GREENING -	- Branch Manager, Law Accident Insurance Society, Ltd., Northampton.
J. MASON GUTTRIDGE	- Secretary, Alliance Assurance Co., Ltd., Liverpool.
JAMES HAMILTON -	- Secretary and General Manager, Yorkshire Insurance Co., Ltd., York.
THOMAS HARTLEY -	- Local Manager, Royal Insurance Co., Ltd., Hanley.
ALBERT H. HEAL -	- General Manager and Secretary, State Assurance Co., Ltd., Liverpool.
CHARLES HENDRY -	- Local Manager, London and Lancashire
J. D. HILL	Fire Insurance Co., Manchester Secretary, Alliance Assurance Co., Ltd.,
JAMES KINLOCH -	Sheffield Local Secretary, Scottish Insurance Cor-
J. ELLIOT LITTLEWOOD	
A. J. LODGE	stitution, Nottingham Ocean Accident and Guarantee Corporation,
HENRY MANN	Ltd., Hanley Secretary, Commercial Union Assurance
G. McKAY MORANT -	Co., Ltd., London Managing Director, King Insurance Co.,
J. GORDON OGILVIE -	Ltd., London Local Secretary, Caledonian Insurance Co.,
J. M. PEATE	Newcastle Local Manager, Atlas Assurance Co., Ltd.,
NORMAN C. PLUMMER	Dublin Local Manager, Liverpool and London and
LLEWELYN PUGH -	Globe Insurance Co., Ltd., Cardiff.
	- Local Secretary, United Legal Indemnity Insurance Society, Ltd., Cardiff.
JOHN ROBERTSON -	- Resident Manager, Northern Assurance Co., Ltd., Aberdeen.
A. K. RODGER	- Manager, Scottish Temperance Life Assurance Co., Ltd., Glasgow.
JAMES M. SCOTT -	- Local Manager, London and Lancashire
C. SHUTT	Fire Insurance Co., Belfast Secretary, Alliance Assurance Co., Ltd., Newcastle.

THOMAS E. SUTTIE Local Secretary, North British and Mercantile Insurance Co., Dundee.
H. J. TAPSCOTT - Local Manager, Royal Exchange Assurance Corporation, Birmingham.
H. TAYLOR Local Manager, Royal Exchange Assurance Corporation, Nottingham.
WALTER THOULESS - Norwich Union Fire Insurance Society, Ltd., Norwich.
GRAHAME H. WILLS, J.P Local Secretary, Western Assurance Co., and Liverpool and London Plate Glass Insurance Co., Ltd., Bristol.
JOHN G. BOSS Local Manager, Royal Insurance Co., Ltd., Newcastle.
ALBERT D. BROOKES - Secretary, Alliance Assurance Co., Ltd., Bristol.
HENRY BROWN General Manager, Century Insurance Co., Ltd., Edinburgh.
H. ERNST HALL - Chairman, Fire Offices' Committee, London.
O. DAN JONES Assistant Fire Manager (Edinburgh), North British and Mercantile Insurance Co., Edinburgh.
J. CORBET McBRIDE - Accident Manager, Commercial Union Assurance Co., Ltd., London.
G. E. MEAD Secretary, Sun Insurance Office, London.
C. E. NOVERRE, J.P London Manager, Norwich Union Fire Insurance Society, London.
R. A. OGILVIE Underwriter, Alliance Assurance Co., Ltd., London.
S. C. TURNER General Manager and Secretary, Essex and Suffolk Equitable Insurance Society, Ltd., London.
A. PLAYER FEDDEN - Secretary and Manager, Fine Art and General Insurance Co., Ltd., London.
H. M. LOW Manager and Secretary, Legal Insurance Co., Ltd., London.
F. W. RUTHERFORD - General Manager, National General Insurance Co., Ltd., London.
S. A. BENNETT Joint Manager, North-Western Insurance Co., Ltd., London.
J. GLEN Manager and Secretary, National Insurance Co. of Great Britain, Ltd., Glasgow.
F. C. SCOTT Secretary, Provincial Insurance Co., Ltd., Bolton.
NORMAN M. WALKER - Managing Director, British General Insurance Co., Ltd., London.
F. THORESBY General Manager, Car and General Insurance Corporation, Ltd., London.

The first President of The Institute shall be :-

O. MORGAN OWEN - Joint Secretary, Alliance Assurance Co., Ltd., London.

And the first ex-officio Members of the Council shall be :-

F. W. P. RUTTER - General Manager and Secretary, London and Lancashire Fire Insurance Co., Liverpool. 1910-1911. General Manager, Employers' Liability Assurance Corporation, S. STANLEY BROWN Ltd., London. 1909-10. N. B. GUNN, F.F.A., F.I.A. - Manager and Actuary, Scottish Widows' Fund, Edinburgh. 1908-9. - General Manager, Royal Insurance CHARLES ALCOCK Co., Ltd., Liverpool. 1907-8. E. ROGER OWEN - General Manager, Commercial Union Assurance Co., Ltd., London. 1906-7. SAMUEL J. PIPKIN - General Manager and Secretary, Atlas Assurance Co., Ltd., London. 1905-6. JAMES OSTLER -- Treasurer. - Secretary, Examiners Committee. WILLIAM HOLBROOK STEWART LAWRIE -- Secretary, Publications Committee.

The said Members of the Council, President, and ex-officio Members shall respectively hold effice until the due election of their successors in accordance with the Bye-laws of The Institute, but shall be respectively eligible for re-election if otherwise qualified. Office in any of the above capacities with the said Voluntary Association or Society shall count as office with The Institute for purposes of retirement or otherwise.

- 9. Subject as aforesaid, The Institute shall have such Officers, with such functions, tenure and terms of office, as the Council of The Institute may from time to time prescribe, and such servants as the Council of The Institute may from time to time appoint.
- 10. The government and control of The Institute and its property, affairs, and business shall be vested in the Council, subject to the provisions of these Presents, and to the Bye-laws of The Institute. Subject as aforesaid, the Council shall have power from time to time to make, revoke, and vary regulations for the conduct of the business and affairs of The Institute and the Council, to appoint Committees from among its own members, and to delegate to any such Committee such of its powers as it may deem expedient.
- 11. In every year a General Meeting of the Institute shall be held at such time and place as may be appointed by the Council

for the time being. Such meeting shall be and is herein called the Annual Conference. The business to be transacted at the Annual Conference and the method of conducting the same shall, subject to the provisions of these Presents, be as prescribed by the Bye-laws for the time being.

12. The Institute shall consist of Members, Honorary Members, and Corresponding Members.

13. Members shall be—

All persons who are or shall become members of such Local Insurance Institutes as shall be approved by the Council and shall contribute annually to the funds of the Institute such a proportion of the annual subscription of each of their members as the Annual Conference may from time to time decide.

Provided always that it shall not be lawful for The Institute to accept an annual contribution from any Local Institute which shall exclude from membership the officers or employees of any particular class of Insurance Company, or to refuse approval of any Local Institute, or acceptance of an annual contribution from any Local Institute, on the ground that such Local Institute includes among its members the officers or employees of any particular class of Insurance Company.

- 14. Honorary Members shall be those who may be deemed worthy of the distinction and likely to promote the objects of The Institute, and are duly elected as Honorary Fellows or Honorary Associates by the Annual Conference of The Institute on the recommendation of the Council. The names of Honorary Members shall be published in the Journal of the Institute, during the pleasure of the Council.
- 15. Every person who is for the time being resident out of the United Kingdom, and who is professionally engaged as a secretary, manager, assistant secretary, assistant manager, actuary, assistant actuary, underwriter or average adjuster of an Insurance Company duly constituted according to the law of the State in which such Company carries on its business, shall be eligible as a

Corresponding Member on such conditions as the Bye-laws for the time being of The Institute may prescribe, but shall cease to be a Corresponding Member on it being shown to the satisfaction of the Council that he is no longer resident out of the United Kingdom.

16. (a) At any time up to the 31st December, 1912, the Council may elect as a Fellow of The Institute any Member who shall not be less than 25 years of age, and who shall have been for not less than ten years in the employ of an Insurance Company incorporated in the United Kingdom, and who shall then be acting or have acted as General Manager, Assistant General Manager, Secretary, Assistant Secretary, Actuary, or Chief of any Head Office Department, or as Chief Officer of any branch office of any Insurance Company incorporated in the United Kingdom, or who shall possess such other qualifications as, in the opinion of the Council, render him eligible to be a Fellow of the Institute.

The Council may also at any time up to the date afore-said elect as an Associate of The Institute any Member who shall not be less than 21 years of age, and who shall have been for not less than seven years in the employ of an Insurance Company incorporated in the United Kingdom, and who shall at the time of election be acting in some responsible capacity in the employ of an Insurance Company so incorporated, or who shall possess such other qualifications as in the opinion of the Council render him eligible.

(b) Subject as aforesaid, the election to Fellowship or Associate-ship shall only take place as the result of examination following such course of education (if any) as the Council may from time to time prescribe. The Council shall elect as Fellows, such members having attained the age of 25 years, or Associates, such members having attained the age of 21 years, as shall have completed such course of education (if any) as aforesaid, and shall have passed the qualifying examination for fellowship or associateship respectively. Such qualifying examination shall be held at such

time or times, not being less than once in each year, and at such place or places as the Council may from time to time determine, but so that the first of such examinations need not be held before the year 1913, and that every such examination shall be limited to subjects in regard to which information and study are open and available to all The election to Fellowship and Associateship of the successful candidates at each qualifying examination shall be reported by the Council to the Annual Conference held next after the result of such examination shall have been reported to the Council by the examiners. Provided always that such course of education and examination or either of them may be dispensed with in such exceptional cases on such conditions and in such manner as may be prescribed by the Bye-laws of the Institute for the time being.

- (c) Elections to Honorary Fellowship and Honorary Associateship shall be made at the Annual Conference on the recommendation of the Council, and shall be decided by a vote of not less than three-fourths of the members present and entitled to vote. One month's notice in writing shall be given by the Council to the Secretary of each subscribing local Insurance Institute of the name of every candidate so recommended for election to Honorary Fellowship or Associateship.
- (d) Fellows and Associates shall respectively be entitled to use after their name the words, "Fellow of the Chartered Insurance Institute" and "Associate of the Chartered Insurance Institute," or the initals "F.C.I.I." or "A.C.I.I."
- (e) Certificates may be given in the case of Fellows and Associates who, in addition to the qualifying examination, have passed such examination as may from time to time be prescribed by the Council in any special subjects not included in the qualifying examination; but no distinguishing words or marks shall be made in any of the publications of the Institute differentiating the holders of certificates granted in respect of any examination not open to all Members, Associates, or Fellows as the case may be.

- (f) The elections to Fellowship and Associateship, both Honorary and otherwise, in each year shall be published in the Journal of the Institute.
- Associateship hereinbefore specified, the Council shall in each year, beginning with 1912, hold an examination in the theory and practice of Insurance, or of any particular branch or branches thereof, which will be open to all students, whether members of The Institute or not, who have completed such course of preliminary study and education (if any) as the Council may from time to time prescribe, and shall grant diplomas or certificates to all candidates who have in such examination satisfied the examiners as to their proficiency. Such examination may, if the Council so prescribe, be in whole or part identical with and be held at the same times and places as the qualifying examinations specified in Clause 16, and shall in like manner as such qualifying examinations be limited to subjects in regard to which information and study are open and available to all candidates.
- 18. Insurance Institutes established in any of the Colonies or Dominions of the British Empire or in any foreign country may be affiliated to The Institute on such terms and conditions as may be provided by the Bye-Laws of The Institute. The members of such affiliated Institutes shall have such privileges and advantages as are conferred by the Bye-laws, but shall have no control in the management.
- 19. Examinations required by or under these Presents shall (subject to the provisions of these Presents) be held, conducted, and passed at such times, in such manner, and subject to such conditions as the Council for the time being of The Institute shall prescribe. Provided that candidates who have satisfied the examiners in any branch or part of the examinations held by the Voluntary Association mentioned in Clause 1 hereof shall be deemed to have passed the corresponding branch or part of the examinations required by or under these Presents, and shall be entitled to sit for the remaining branches or parts of such examinations on complying with the prescribed regulations, and Clauses 16 and 17 hereof shall be construed and take effect accordingly.

- 20. Subject as above, the qualifications, method and terms of admission, privileges and obligations, including liability to expulsion or suspension, of Members of each of the said three classes respectively shall be such as the Bye-laws for the time being of The Institute shall direct.
- 21. The Council shall have power to decide conclusively respecting each person proposed for or seeking election as an Honorary Member, or as a Fellow or Associate, whether he has or has not fulfilled such conditions as are applicable to his case.
- 22. All Members of The Institute shall, subject to any restriction imposed by the Bye-laws for the time being of The Institute, be entitled to be present and vote at The Annual Conference and General Meetings, and take part in the discussion of business thereat.
- 23. The Council, or the majority of the Members thereof actually present and voting at any duly convened Meeting, shall have power from time to time to make such Bye-laws of The Institute as are consistent with the provisions of these Presents and as to them shall seem requisite or convenient for the regulation, government, and advantage of The Institute, its Members and property, and for the furtherance of the objects of The Institute, and from time to time to revoke, alter, or amend any Bye-law or Bye-laws theretofore made. Provided that no such Bye-law, revocation, alteration, or amendment shall take effect until the same has been submitted to and approved either in its original or a modified form by the Annual Conference or a General Meeting of The Institute with respect to which notice in writing has been given to the Secretary of each Local Institute that such Bye-law, revocation, alteration, or amendment will be taken into consideration thereat, and has been allowed by the Lords of Our Privy Council, of which allowance a certificate under the hand of the Clerk of Our Privy Council shall be conclusive evidence.
- 24. The first Bye-laws to be made under these Presents shall be made by the Council, and approved by the Annual Conference or a General Meeting of The Institute within the period of one year from the date of these Presents, unless the Lords of Our

Privy Council shall see fit to extend such period, of which extension the Certificate of the Clerk to Our Privy Council shall be conclusive evidence.

- 25. Pending the making and approval of the Bye-laws to be made under these Presents, but no longer, the Articles of the said Voluntary Association or Society known as The Insurance Institute of Great Britain and Ireland shall, so far as they are not inconsistent with the provisions of these Presents, be the Byelaws of The Institute, and shall have effect as though The Institute, its Officers and Members had therein been referred to throughout in lieu to the said Voluntary Association or Society, its Officers and Members.
- 26. The property and moneys of the said Voluntary Association or Society shall from the date of these Presents become and be deemed to be the property and moneys of The Institute, and shall, as soon as may be, be duly transferred to The Institute, or such person or persons on its behalf as the Bye-laws may prescribe.
- 27. And WE do hereby, for Us, Our Heirs and Successors, grant and declare that these Our Letters Patent, or the enrolment or exemplification thereof, shall be in all things good, firm, valid, and effectual, according to the true intent and meaning of the same, and shall be taken, construed, and adjudged, in all Our Courts or elsewhere, in the most favourable and beneficial sense and for the best advantage of The Chartered Insurance Institute, any mis-recital, non-recital, omission, defect, imperfection, matter, or thing whatsoever notwithstanding.

IN WITNESS whereof WE have caused these Our Letters to be made Patent.

Witness Ourself at Westminster the Fifth day of February, in the Second year of Our Reign.

By Warrant under the hands of the Lords Commissioners in the name and on behalf of His Majesty.



THE CHARTERED INSURANCE INSTITUTE.

Bye=Laws.

Preliminary.

- 1. These Bye-laws shall come into operation as soon as they are allowed by the Lords of His Majesty's Most Honourable Privy Council.
- 2. Words in these Bye-laws have the same meaning as in the Charter; and references herein to Members, Fellows, Associates, Honorary Members, Corresponding Members, and Meetings are to be construed as having reference to Members, Fellows, Associates, Honorary Members, Corresponding Members, and Meetings of the Chartered Insurance Institute; and in the interpretation of these Bye-laws the following words and expressions shall have the following meanings, unless such meaning is excluded by the subject or context:—
 - "The Bye-laws" means the Bye-laws of the Institute for the time being.
 - "The Council" means the Council for the time being of the Institute, as constituted pursuant to the provisions of the Charter and the Bye-laws.
 - "Local Institute" means a Local Insurance Institute for the time being approved by the Council and contributing annually to the funds of the Institute, as provided by Clause 13 of the Charter.
 - "General Meeting" includes Annual Conference and Special Meeting.

- "Special Resolution" means a resolution (whether proposed as a "special resolution" or not) passed at a General Meeting, convened with notice of such resolution, by a majority of not less than three-fourths of the voting representatives present and voting thereat, or in the case of a poll by a majority of not less than three-fourths of the Members whose votes shall have been allowed.
- "Month" means calendar month.

The masculine gender includes the feminine gender.

"In writing" means written, printed, typed, or produced by any other substitute for writing, or partly one and partly another.

CLASSES OF MEMBERS.

3. The Members of the Institute shall consist of (1) Members of Local Institutes, including those who may be elected as Fellows and Associates; (2) Honorary Members, described as Honorary Fellows and Honorary Associates; and (3) Corresponding Members.

Fellows.

- 4. Fellows shall comprise every person who shall have been elected by the Council as such on or before the 31st day of December, 1912, in accordance with Clause 16 (a) of the Charter, and shall pay the prescribed fees and subscriptions, and every other person thereafter elected or to be elected as such by the Council under Clause 16 (b) of the Charter.
- 5. Every candidate for the election into the class of Fellows after the 31st day of December, 1912, shall be not less than twenty-five years of age, and shall comply with the following conditions:—
 - (a) He shall have passed such qualifying examinations as the Council may prescribe under Clause 16 (b) of the Charter, unless specially exempted pursuant to Bye-law 55.
 - (b) He shall pay the prescribed fees and subscriptions.

Associates.

6. Associates shall comprise every person who shall have been elected by the Council as such on or before the 31st day of

December, 1912, in accordance with Clause 16 (a) of the Charter, and shall pay the prescribed fees and subscriptions, and every other person thereafter elected or to be elected as such by the Council under Clause 16 (b) of the Charter.

- 7. Every candidate for election into the class of Associates after the 31st day of December, 1912, shall be not less than twenty-one years of age, and shall comply with the following conditions:—
 - (a) He shall have passed such qualifying examinations as the Council may prescribe under Clause 16 (b) of the Charter, unless specially exempted pursuant to Bye-law 55.
 - (b) He shall pay the prescribed fees and subscriptions.

HONORARY MEMBERS.

- 8. Honorary Members shall be those persons who shall be deemed worthy by the Council of election as Honorary Fellows or Honorary Associates, and who shall be elected as such by a Special Resolution passed at an Annual Conference.
- 9. One month's notice in writing shall be given by the Council to each Local Institute of the name of every person recommended by the Council for election as an Honorary Fellow or Honorary Associate.
- 10. Honorary Members shall be entitled to the ordinary privileges of membership, except the right to vote or take part in the management of the affairs of the Institute. They shall not be required to contribute to the funds of the Institute.

Corresponding Members.

11. Corresponding Members shall be those persons having the qualifications mentioned in Clause 15 of the Charter, who shall be deemed by the Council to be fit and proper persons for the position, and who shall be elected as Corresponding Members by a special resolution passed at the Annual Conference. Corresponding Members shall pay the prescribed fees and subscriptions.

- 12. One month's notice in writing shall be given to each Local Institute of the name of every person recommended by the Council for election as a Corresponding Member.
- 13. Corresponding Members shall be entitled to the ordinary privileges of membership, except the right to vote or take part in the management of the affairs of the Institute, subject nevertheless to the provisions of Clause 15 of the Charter and to the Bye-laws. A Corresponding Member shall be entitled to one copy of the Journal of the Institute at the same price as is charged to the members of Local Institutes, plus the cost of carriage.

RIGHTS OF MEMBERS.

14. All Members and Honorary Members of the Institute shall, subject to any restrictions which may be imposed by the Bye-laws, be entitled to be present at all General Meetings of the Institute and to take part in the discussion of business thereat, and to such other rights as may be conferred upon them by the Charter, the Bye-laws, and any regulations made thereunder.

REGISTER OF MEMBERS.

15. Registers shall be kept containing the names of all members, showing the dates when they were elected to membership, elected to any particular class or degree of membership, ceased to be members, or were re-admitted, with such further particulars as the Council may determine. Each of the Local Institutes shall, not later than 28th February in each year, furnish to the Secretary of the Institute a list of its members as at 1st January of the current year, with particulars of their addresses and of the official positions held by them respectively, or, as the case may be, of any additions to or changes in any list previously furnished. In the case of members not being members of a Local Institute, similar particulars shall be furnished by them respectively on election, and changes in such particulars from time to time notified to the Council.

Subscriptions and Fees.

16. The subscriptions to the Institute payable by the Local Institutes pursuant to Clause 13 of the Charter shall be fixed from year to year by resolution of the Annual Conference. All

other subscriptions and fees shall be fixed by the Council, and the Council shall have power, in cases of ill-health, misfortune, advanced age, or on other grounds which they shall think sufficient, to remit all or any part of the subscription or fees, or any arrears thereof, due from any member. The Council may also fix rates at which any subscriptions or fees may be compounded.

- 17. All subscriptions shall be for the period from the date of the Annual Conference in one year to the date of the next Annual Conference, and shall be due to the Institute and paid to the Treasurer thereof within three months from the date of the Annual Conference fixing the same.
- 18. Until otherwise determined by special resolution, the fees payable by Fellows and Associates, in addition to the subscription payable under Bye-law 16, shall not exceed the following rates, namely, the fee payable on election as a Fellow without having first been an Associate, £5 5s. 0d.; the fee payable on election as Associate, and on election as a Fellow from the class of Associate, £2 2s. 0d.; the annual subscription of a Fellow, £1 1s. 0d.; and the annual subscription of an Associate, 10s. 6d.

Affiliated Institutes.

19. There shall be affiliated to the Institute in pursuance of Clause 18 of the Charter the following Institutes, namely:—

The Insurance Institute of the Cape of Good Hope,

The Insurance Institute of Toronto,

The Insurance Institute of Victoria,
The Insurance Institute of the Transvaal,

and any other Institutes whose application may from time to time be approved by the Council and sanctioned by a special resolution passed at the Annual Conference. Such Institutes shall cease to be affiliated if they shall be in default for a period of six months in payment of the subscription hereinafter mentioned, unless the Council shall waive such default, or upon the rescission of their affiliation having been recommended by the Council and sanctioned by a special resolution.

20. Affiliated Institutes shall be charged an annual subscription to be fixed by the Council, and until otherwise determined by

special resolution such subscription shall not exceed £5 5s. 0d. Each affiliated Institute shall be entitled to one copy of the Journal of the Institute for each of its members at the same price as is charged to the members of Local Institutes, plus the cost of carriage.

21. Members of affiliated Institutes shall not be entitled to receive notice of meetings, but while resident in the United Kingdom, on giving such proof of membership as may be reasonably required and notifying the Secretary of the Institute of their address within the United Kingdom, shall be allowed to attend the Annual Conference, and, with the consent of the Council, Special Meetings, but they shall have no votes. They shall also, on giving such proof of membership and notification of address as aforesaid, have the same facilities as members of the Local Institutes for the use of the offices and library of the Institute, for a period of six months or such extended period as the Council may allow.

OFFICERS OF THE INSTITUTE.

- 22. The President, Vice-Presidents, and Treasurer of the Institute, the Secretary of the Examiners Committee, and the Secretary of the Publications Committee shall be elected every year at the Annual Conference, and they shall hold office from the close of the Annual Conference at which they are elected until the close of the next succeeding Annual Conference. No person shall be proposed for election to any of the said offices unless he has been nominated for such office in writing by not less than four members of the Council, and such nomination and a consent, in writing, to stand for election to such office signed by or on behalf of the person nominated have been received by the Secretary of the Institute not less than fourteen clear days before the Annual Conference. No person shall hold the office of President for two years in succession.
- 23. The office of President, Vice-President, or Treasurer of the Institute, the Secretary of the Examiners Committee, and the Secretary of the Publications Committee shall be vacated in any of the events named in paragraphs (2), (3), and (4) of Byelaw 29, or in the event of removal by special resolution, and any vacancy in the said offices, by death or otherwise, before the year

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of office has expired, may be filled up by the Council, and such appointment shall hold good until the next ensuing Annual Conference.

THE COUNCIL.

- 24. The Council shall consist of "elected members," "nominated members," and "ex-officio members," as provided by Clause 6 of the Charter.
- 25. The "elected members" shall be elected by the Local Institutes, and the following rules shall apply:—
 - (a) If and so long as the number of Local Institutes shall not exceed twenty, each Local Institute shall every year elect two of its Members to that office.
 - (b) In the event of the number of Local Institutes exceeding twenty, there shall be forty "elected members," appointed in each year as follows:—Each of the Local Institutes existing on 1st April shall elect one of its members to that office, and the vacancies (being the difference between forty and the number so elected) shall be filled by so many of the largest Local Institutes as equal the number of vacancies each electing an additional member to that office. For the purpose of this Bye-law the largest Local Institute shall be deemed to be the Local Institute having the largest number of members on 1st January of the current year, according to the lists supplied to the Secretary pursuant to Bye-law 15, or as between two Local Institutes having an equal number of members, the senior Local Institute. The Secretary shall notify the Local Institutes not later than 3rd April in each year which of them are entitled to elect a second "elected member" pursuant to this provision.
 - (c) Subject as aforesaid, the election of "elected members" shall be held in such manner as may from time to time be approved by the Council.
 - (d) Notice of the persons elected shall be given to the Secretary of the Institute on or before the 15th April in each year, and they shall enter upon office as from the opening of the then ensuing Annual Conference.

- 26. The "nominated members" shall be appointed by the "elected members" in such manner not inconsistent with the Charter as the Institute shall by special resolution prescribe, and until otherwise prescribed by such special resolution the following rules shall apply:—
 - (a) The "nominated members" for each year shall be appointed at a meeting of the "elected members" for such year, such meeting to be held on the same day as the Annual Conference, and the "nominated members" so appointed shall hold office as from the close of such Annual Conference;
 - (b) No person shall be eligible for appointment as a "nominated member" unless one or more of the "elected members" shall, not later than the 15th May preceding the date of the meeting, have in writing submitted his name as a candidate to the Secretary of the Institute;
 - (c) The Secretary shall make out a list in alphabetical order of the names of all persons so submitted as candidates, and shall, not later than the 20th May preceding the date of the meeting, send by post a copy of such list together with a notice of the meeting to each of the "elected members." Such notice shall state the number of places to be filled by nominated members;
 - (d) The voting at such meeting shall be by ballot, every "elected member" being entitled to vote for as many of the persons named on such list as there are places on the Council to be filled by "nominated members." Not more than one vote shall be given by any "elected member" for any one candidate, nor shall he vote for a greater number of candidates than there are vacancies, and if he does so vote, all his votes shall be disallowed;
 - (e) Votes may be given either in person or by proxy, but every proxy must be an "elected member," and the instrument of proxy, signed by the person giving the same, must be deposited with the Secretary not less than forty-eight hours before the meeting;

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- (f) The quorum for such meeting shall be ten "elected members" present in person or by proxy;
 - (g) In case of any equality of votes the Chairman of the meeting shall have a second or casting vote;
 - (h) The President shall be Chairman of the meeting; or in his absence a Chairman of the meeting shall before the commencement of the voting for the candidates be appointed by the "elected members" personally present from their own number;
 - (i) Except as herein expressly provided, the procedure at such meeting shall be such as may from time to time be approved by the Council.
- 27. The "elected members" shall hold office until the opening, and the "nominated members" until the close, of the Annual Conference in the year next after that in which their election or nomination took effect, but shall be eligible for re-election or renomination.
- 28. So soon as the constitution of the Council shall have been completed as provided by the Charter and the Bye-laws, notice thereof shall be given to the Local Institutes by the Secretary of the Institute.
 - 29. The office of a member of the Council shall be vacated—
 - (1) If he ceases to be a member of the Institute.
 - (2) On the expiration of one month's notice in writing by such member resigning his office, or the earlier acceptance by the Council of such resignation.
 - (3) If he becomes bankrupt, or suspends payment, or compounds with or makes an assignment of his property for the benefit of his creditors.
 - (4) If he is found lunatic or becomes of unsound mind.

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- (5) If at a meeting of the Council specially convened for the purpose, at which not less than twenty members of the Council are present, a resolution is passed by a majority of not less than three-fourths of those present and voting, declaring the office of such member vacant.
- 30. Any vacancy in the Council may be filled up (a) in the case of an "elected member," by the Local Institute by whom the member, whose office is vacated, was elected, and (b) in the case of a "nominated member," by resolution of the Council passed in the same manner as a resolution under paragraph (5) of the last preceding Bye-law.

PROCEEDINGS OF THE COUNCIL.

- 31. The Council shall meet for the dispatch of business at such times and places as they may determine. Ten members, representing not less than five Local Institutes, shall form a quorum. At all meetings of the Council the President shall be Chairman; in his absence, the Chairman shall be elected from among those present.
- 32. A meeting of the Council may at any time be called by order of the President or a Vice-President, or at the request in writing, addressed to the Secretary, of any six other members of the Council.
- 33. Seven clear days' notice of a meeting of the Council, or three clear days' notice in a case of emergency, shall be delivered or sent to each member of the Council at his registered address, and such notice shall, so far as practicable, contain a statement of the business to be transacted at such meeting. It shall not be necessary in any case to prove that such notice has been delivered or sent, but the same shall be taken as delivered or duly sent unless the contrary be shown; and the non-receipt of any notice by any member, or the non-existence of any supposed emergency, shall not affect the validity of the proceedings of any meeting.
- 34. Subject to Bye-law 29 (5), at all meetings of the Council, in the event of difference of opinion, the vote of the majority shall prevail; and, in case of equality of votes, the Chairman shall have a casting vote, in addition to his original vote.

35. The Chairman of any meeting of the Council may, with the consent of the meeting, adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. No notice need be given of an adjourned meeting unless it be so directed in the resolution for adjournment.

Powers and Duties of the Council.

36. It shall be the duty of the Council to control, assist, and direct the work of the Institute and of all Committees, and to deal with all matters on which an immediate decision may be required in the interest of the Institute, and to present at each Annual Conference a report on the position of the Institute, financial and otherwise, and on the affairs and proceedings of the Institute during the past year.

37. The Council shall have power to regulate their own procedure and to make provision for carrying out the objects of the Institute, and for conducting its affairs, and shall, subject to the provisions of the Charter and of the Bye-laws, have the sole control and management of the income, property, and affairs of the Institute, and may exercise all powers and do all such acts and things as may be exercised or done by the Institute. No member of the Council as such shall receive any remuneration. Council may make such regulations as they may from time to time determine for the proper administration of the Institute and the control of the members, provided that no such regulation shall be in contravention of any provision contained in the Charter or amount to an alteration of the Bye-laws. Without prejudice to the generality of the foregoing, the Council may make rules for securing, as far as possible, uniformity in the constitution, regulations, and practice of the Local Institutes, compliance with which shall be a condition, of which the breach shall entitle the Council to refuse the first or any subsequent annual contribution of a Local Institute, provided nevertheless that any such refusal may be varied or rescinded by special resolution.

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- 38. In furtherance of and without prejudice to the general powers conferred by Charter and by the last preceding Bye-law, and of the other powers conferred by the Bye-laws, it is hereby expressly declared that the Council shall have the following powers:—
 - To appoint, upon such terms and conditions as to them may seem fit, and to dismiss a Secretary and other paid officers of the Institute.
 - (2) To purchase or take a lease of, or otherwise acquire, any buildings, offices, or rooms for the purposes of the Institute, and to assign, sub-let, or surrender the same as circumstances may require.
 - (3) To employ any part of the funds of the Institute in the provision and maintenance of a suitable collection of books, reports, statistics, accounts, papers, maps, plans, instruments, models, and other things of interest to the Insurance profession.
 - (4) To apply to or petition Parliament, the Privy Council, the Board of Trade, or any public department or authority, officer, or body, in the name of the Institute.
 - (5) To apply such portion or portions of the funds of the Institute as they may think fit towards forming and maintaining a Reserve Fund for the general purposes of the Institute.
 - (6) To invest all funds not immediately required for the purposes of the Institute in the name of the Institute or any two or more members of the Council, in any investments approved by the Council, with power from time to time to vary such investments, and to place money on deposit with any bankers.
 - (7) To borrow money temporarily and to pay interest thereon.
 - (8) With the consent of a General Meeting, to make such provision for pensioning retired officers or servants, whether by agreement at the time of appointment or

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- employment, or otherwise, as to the Council may seem just, and generally to carry into effect any of the objects mentioned in Clause 4 (k) of the Charter.
- (9) To employ any part of the funds of the Institute in the payment of lecturers, and the foundation or grant of scholarships, exhibitions, prizes, and medals in connection with any of the subjects of the examinations held by the Institute, or otherwise.
- (10) To pay the reasonable travelling and out-of-pocket expenses of the members of the Council incurred in attending General Meetings or meetings of the Council or any Committee thereof, and to repay to any member any expenses actually incurred by him in the business or on behalf of the Institute.
- (11) From time to time to appoint any persons to act as Local, Colonial, or Foreign representatives or agents of the Institute, either in an honorary capacity, or at a remuneration, and generally on such terms and for such period as the Council may determine.
- (12) Subject to the provisions of the Charter and Bye-laws, to enter into such contracts and to do all such acts and things as they think expedient for the purposes of the Institute.

COMMITTEES.

39. The Council may appoint Committees, and delegate to them any of the powers of the Council, or assign to them such duties as may be agreed. The Committees shall in the exercise of their powers conform to any instructions given by the Council, but shall in all other respects regulate their own procedure. The President shall be entitled to attend and to take the Chair at all meetings of such Committees.

ANNUAL CONFERENCE AND SPECIAL MEETINGS.

40. The Annual Conference shall be held on such day, in the month of June, and at such place in the United Kingdom, as the Council may from time to time determine. The ordinary business

of an Annual Conference shall be to receive and consider the annual report and accounts, the reports of the Examiners Committee and Publications Committee, and of any other Special Committee appointed with instructions to report to the Annual Conference; to announce the appointment of the "elected members" of the Council and the election of Fellows and Associates; to elect the Officers of the Institute mentioned in Bye-law 22; and to elect Honorary Members and Corresponding Members. All other business transacted at the Annual Conference, and all business transacted at a Special Meeting, shall be deemed to be special business.

- 41. The Council may, whenever they think fit, and shall within twenty-one days after the receipt of a requisition in writing signed by or on behalf of not less than six Local Institutes, convene a Special Meeting of the Institute.
- 42. One month's notice of the Annual Conference and fourteen clear days' notice of all Special Meetings shall be given to each Local Institute, specifying the date, hour, and place of meeting, and in the case of special business the general nature of such business. A member wishing to bring before the Annual Conference any special business shall give notice thereof in writing to the Secretary on or before the 15th April, and if so given notice thereof shall be included in the notice convening the Annual Conference, provided, nevertheless, that any such notice may be disregarded and excluded from the notice convening the Annual Conference, unless the same be countersigned as approved by two members of the Council of the Local Institute to which such member belongs. Save as aforesaid, no special business shall be considered at the Annual Conference, unless it be deemed a matter of extreme urgency by the members assembled or be expressly authorised by the Bye-laws.
- 43. At every General Meeting thirty members, representing not less than six Local Institutes, shall form a quorum. If a quorum be not present within an hour of the time appointed for the meeting, the meeting, if convened upon requisition as aforesaid, shall be dissolved; in any other case it shall stand adjourned to the same day in the second succeeding week at the same time and place, and at such adjourned meeting the members present shall form a quorum.

- 44. At every General Meeting the chair shall be taken by the President, or in his absence by one of the Vice-Presidents, whom failing, a Chairman shall be elected from among the members of the Council present; or, in the absence of all of them, from among the members present.
- 45. The Chairman of any General Meeting may, with the consent of the meeting, adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. No notice need be given of an adjourned meeting unless it be so directed in the resolution for adjournment.
- 46. All past Presidents of the Institute, the Examiners for the time being of the Institute, the Founder and the Chairman for the time being of the Insurance Clerks' Orphanage, and any other persons whom the Council may think fit to invite, shall be entitled to attend the Annual Conference.
- 47. At every General Meeting the voting shall in the first instance be by Local Institutes, each Local Institute being entitled to one vote, and being represented for the purpose by a member thereof, herein referred to as "the voting representative." Notice shall be sent to the Secretary of the Institute, not less than four days prior to the date of the meeting, of the names of the voting representatives of the Local Institutes, signed by their respective Secretaries or other acting chief officers, as nearly as possible in the following form:—

The Insurance Institute of
hereby gives notice that it has appointed
whom failing, whom failing,
to act as its voting representative
at the Annual Conference (or Special Meeting) of the
Chartered Insurance Institute to be held on the
day of , 19 , and at every adjournment
thereof.

Dated

In default of such notice being given by a Local Institute, or in the absence of its voting representative appointed as aforesaid, the President of such Local Institute, or in his absence any member of the Council of such Local Institute (to be selected by the Chairman of the meeting), may, with the consent of the meeting, be allowed to act as voting representative.

- 48. In the event of an equality of votes the Chairman shall have a casting vote, in addition to the vote to which he may be entitled as a voting representative.
- 49. A poll of the members of the Institute entitled to vote may be demanded in writing by not less than one-third of the voting representatives present at the meeting, or by thirty members comprising at least one member of the respective Councils of not less than one-quarter of the Local Institutes, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll is demanded. Every such poll shall be taken in the following manner:—
 - (a) The Chairman shall forthwith reduce the resolutions or amendments on which the poll is to be taken into such form as in his opinion is best calculated to take the sense of the members upon the substantial question or questions involved.
 - (b) The Council shall settle a form of voting paper, in accordance with the decision of the Chairman under the last preceding paragraph, and shall within ten days after the meeting forward a copy to each Local Institute.
 - (c) Within four days after receipt of such form, the Council of each Local Institute shall send copies thereof to its members at their registered addresses, with instructions to return the same to the Secretary of such Local Institute on or before a date to be named in the voting paper, which date, in the absence of direction to the contrary by a resolution of the meeting at which the poll was demanded, shall be the twenty-first day after such meeting.

- (d) The Council of each Local Institute shall appoint five scrutineers, of whom three shall form a quorum, and such scrutineers, within seven days after the date prescribed for the return of the voting papers, shall make an examination thereof and draw up and sign a report of the result of the voting, in which they shall state the total number of voting papers received, the number rejected, and the grounds for rejection.
- (e) The scrutineers shall forthwith deliver their report to the Secretary of the Local Institute by whom they were appointed, who shall immediately forward a copy thereof to the Secretary of the Institute.
- (f) The Council of the Institute shall have power to decide whether votes have been properly rejected or not, and their decision shall be absolute and final, and the scrutineers' report shall be adjusted in accordance with such decision; but, subject as aforesaid, the scrutineers' report shall be conclusive evidence as to the result of the polling.
- (g) As soon as the Council shall have ascertained the final result of the poll, taken as aforesaid, they shall make a report thereof to each of the Local Institutes, showing the majority by which the resolution or amendment upon which the poll was taken is lost or carried.
- 50. The demand of a poll at any meeting shall not prevent the transaction of any business other than that on which the poll has been demanded.

EXAMINATIONS.

51. The Council shall cause examinations to be held pursuant to Clauses 16 and 17 of the Charter, and shall have power to make, alter, amend, or revoke from time to time rules providing for all matters relating to such examinations, including the subjects comprised in such examinations and the fees payable by candidates, both in the United Kingdom and elsewhere.

- 52. The Council shall at their first meeting after each Annual Conference appoint not less than five of their number to be the Examiners Committee for the ensuing year, of whom three shall constitute a quorum at meetings of such Committee.
- 53. The Council may also appoint such persons as they shall determine, whether members of the Institute or not, and with or without remuneration, to be examiners for all or any of the examinations held prior to the date of the next ensuing Annual Conference, and the Examiners Committee may co-opt all or any such examiners to serve as Members of the Examiners Committee.
- 54. The Examiners Committee shall submit a report to the Council upon the result of the examination, and upon the adoption thereof by the Council, certificates of having passed, and, if awarded, certificates of merit, prizes or medals, shall, unless withheld for any reasonable cause, be issued to the successful candidates. The Council shall submit the report of the Examiners Committee, or an abstract thereof, to the Annual Conference.
- 55. Dispensation from any prescribed course of education or examination may be granted pursuant to the provisions of Clause 16 (b) of the Charter in exceptional cases by resolution passed by a majority of not less than three-fourths of the members of the Council present and voting at a meeting of the Council convened with notice of such resolution, at which meeting not less than ten members shall be present; provided nevertheless, that no dispensation shall be granted to a prospective Fellow or Associate unless he satisfies the Council that he possesses the qualification for a Fellow or Associate, as the case may be, set out in Clause 16 (a) of the Charter.
- 56. Lists shall be kept of the candidates, showing when they sat, withdrew, passed, or failed, and containing such other particulars as the Council may determine.

DISQUALIFICATION OF LOCAL INSTITUTES.

57. Subject to the restrictions imposed by Clause 13 of the Charter, it shall be lawful for the Institute by special resolution

of a General Meeting, of which at least one month's notice in writing has been given to the Secretary of each Local Institute, to disqualify a Local Institute, for a specified period or otherwise, on the ground of it having, in the opinion of the meeting, introduced any practice inconsistent with the objects of the Institute as set forth in the Charter, or injurious thereto, or otherwise infringed these Bye-laws; and such resolution shall *ipso facto* terminate the membership of the Institute held by the members of such Local Institute, and entitle the Institute to refuse the annual contribution of such Local Institute for the period, if any, named in the resolution, and to forfeit any contribution already received from such Local Institute in respect of the then current year.

Suspension, Expulsion, Resignation, and Re-Admission of Members.

58. There shall be appointed in each year by the Council from among its members a Disciplinary Committee consisting of not less than seven members, of whom three shall form a quorum, for the purpose of investigating questions which may arise under Clause 20 of the Charter, and of considering questions of professional practice generally and cases of alleged misconduct.

59. If any Member, Honorary Member, or Corresponding Member (a) shall be in default for a period of six months in payment of any subscription or debt due from him to the Institute, or becomes bankrupt or insolvent, or suspends payment or enters into any composition with his creditors generally, or (b) is found lunatic or becomes of unsound mind, or (c) if he is convicted by any competent tribunal of an offence which in the opinion of the Disciplinary Committee renders him unfit to be a member of the Institute, or (d) is otherwise in the opinion of the Disciplinary Committee unfit to be a member by reason of dishonourable or unprofessional conduct or a breach of the Bye-laws, the Council, at a meeting convened with notice of intention to consider such resolution, at which not less than twenty members of the Council shall be present, shall be at liberty, upon passing a resolution to that effect specifying which of the above-mentioned disqualifications constitute the ground of the resolution, and by a majority of

not less than two-thirds of those present and voting, to exclude him from membership and remove his name from the register of members, or to suspend all or any of his rights of membership (including the right to hold any particular degree or class of membership), or to call for and accept his resignation, or to reprimand him, without prejudice to the right of the Institute to recover any arrears of subscription or other moneys due from him to the Institute. Provided that the person whose conduct is called in question shall be given notice of such meeting, and shall be entitled to appear before the Council thereat and to be heard. either by himself or by some other member appointed by him in writing, in explanation of his conduct. Provided further that if the resolution is not passed by the requisite majority, the Council shall be at liberty to direct that no minute thereof be recorded in the minute book of the Council, and that any reference thereto already entered in the minutes be expunged.

- 60. A resolution of the Council excluding or suspending any person from membership solely on the ground that he has been guilty of an offence under the head (d) of the last preceding Bye-law may be rescinded or varied within four months of the date thereof by special resolution.
- 61. Any Member, Honorary Member, or Corresponding Member, provided he is under no liability to the Institute, shall be entitled to resign his membership on giving to the Secretary of the Institute one month's notice in writing of his intention so to do. No notice received less than one month before the date on which his annual subscription, if any, falls due, shall relieve a member from his liability to pay such subscription for the ensuing year.
- 62. Candidates for re-admission shall not be required to pass any examination if formerly Fellows, or any examination for Associateship if formerly Associates, or to furnish particulars anterior to the date of their original election, but must, with these exceptions, comply with such of the Bye-laws and such other terms and conditions as the Council may think fit to require in each particular case.
- 63. If any person from any cause whatever ceases to be a member of the Institute, or to be entitled to the rights of any

degree or class of membership, he shall deliver up to the Secretary of the Institute any certificate of membership, or degree or class of membership, then held by him. No person ceasing to be a member shall have, nor shall his representatives have, any interest in or claim against the funds or property of the Institute.

Books, Certificates, and Forms.

- 64. Minutes shall be made in proper books of all resolutions and proceedings of general meetings of the Institute, meetings of the Council, and of meetings of Committees; and every minute signed by the Chairman of the meeting to which it relates, or by the Chairman of subsequent meeting, shall be sufficient evidence of the facts therein stated.
- 65. The Council shall have power to authorise and supply for use, and to vary from time to time as may be thought fit, such certificates of membership, examination certificates, diplomas, and forms for enquiries, applications, recommendations, and otherwise as they may determine, and to make rules relating thereto to be observed by the persons to whom the same are issued.

THE JOURNAL AND PUBLICATIONS.

66. The Council at their first meeting after each Annual Conference shall appoint not less than three of their number to act, with or without the assistance of other members, as a Publications Committee, who shall direct and supervise the compilation and issue of the Journal and other publications of the Institute. The Journal or Year Book of the Institute, containing the Charter, Bye-laws, lists of Local Institutes, Affiliated Institutes. the elections during the year to Fellowship and Associateship. honorary and otherwise, and such other matters as the Council may approve, shall be issued every year to the Local Institutes, members and others, at such prices, or gratuitously, as the Council may from time to time determine. The Council may make and vary rules requiring the Local Institutes and Affiliated Institutes to give notice of the number of copies which they desire to take for themselves and their members, and generally determine the conditions upon which the Journal shall be issued.

THE SEAL.

67. The Council shall provide for the safe custody of the Common Seal, which shall never be affixed to any document except by order of the Council, and in the presence of two members of the Council; and every such document shall be signed by the two members of the Council in whose presence the Seal is affixed, and countersigned by the Secretary or some other person appointed by the Council for the purpose.

SECRETARY.

- 68. It shall be the duty of the Secretary to attend regularly at the office of the Institute, and also at every meeting of the Institute and of the Council and Committees, to take minutes of the proceedings, and to read such minutes at the next meeting. He shall prepare and cause to be issued all notices to be sent to Local Institutes or members. He shall conduct the correspondence of the Institute in accordance with the rules which may from time to time be laid down by the Council. He shall obey the instructions of the Treasurer in all matters relating to finance, and perform such other duties as the Council shall assign to him.
- 69. The Secretary shall demand all payments and subscriptions as they become due. He shall keep such books and forms as the Council shall from time to time direct, and he shall, subject to the general control of the Council, have the superintendence and charge of all the minute books, letter books, lists, and registers belonging to the Institute. He shall keep the minute books of all meetings of the Institute, and of the Council and Committees.

NOTICES.

70. Any notice may be served by the Institute upon any Local Institute or upon any member by sending it through the post, prepaid, addressed to such Institute or member at its or his registered address. The registered address of any Local Institute, or member not being a member of a Local Institute, shall be such address within the United Kingdom as such Institute or member, not being a member of a Local Institute, may from time to time designate to the Secretary of the Institute in writing, and the

registered address of each member of a Local Institute shall be care of the Local Institute to which he belongs, except in the case of members of the Council who have notified to the Secretary some other address to which they desire notices to be sent, which shall then be deemed to be their registered address so long as they remain members of the Council. No Local Institute or member of any Local Institute which shall have failed to furnish such address shall be entitled to receive any notice from the Institute.

71. Any notice sent by post to a Local Institute or member, not being a member of a Local Institute, shall be deemed to have been served at the time when the same would have been delivered in the ordinary course of the post, and in proving such service it shall be sufficient to prove that the notice was properly addressed and posted, and any notice sent to a member through the post at the registered address of his Local Institute shall be deemed to have been served upon him at the expiration of thirty-six hours after it is deemed to have been served on his Local Institute. The accidental omission to give any such notice shall not invalidate the proceedings at any General Meeting of which such notice ought to have been given. No Honorary or Corresponding Member shall be entitled as of right to any notice of any General Meeting of the Institute.

ACCOUNTS AND AUDIT.

- 72. The Treasurer shall keep, or cause to be kept, a proper account of the receipts and expenditure of the Institute, and of the matters in respect of which such receipt and expenditure takes place, and of the property, assets and liabilities of the Institute, in books to be provided for the purpose, and shall produce the account books, properly posted up, when required by the Council.
- 73. Once at least in every year the Treasurer's accounts, made up to the end of the financial year, which until the Council otherwise determine shall end on 31st December, shall be duly audited by a professional Auditor, and certified by two Members of the Council, and an abstract thereof shall be printed and issued to each of the Local Institutes with the notice of the Annual Conference. The Auditor shall be appointed by the Annual Conference.

INDEMNITY OF OFFICERS.

74. The members of the Council, Treasurer, Secretary, and other officers shall be indemnified by the Institute from all losses and expenses incurred by them in or about the discharge of their respective duties, except such as happen from their own respective wilful default, and no member of the Council or other officer shall be liable for any other member of the Council or officer, or for joining in act or receipt, or for any act of conformity, or for any loss happening to the Institute, unless the same shall be due to his own wilful default.

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ALLOWANCE OF BYE-LAWS

AT THE

COUNCIL CHAMBER, WHITEHALL,

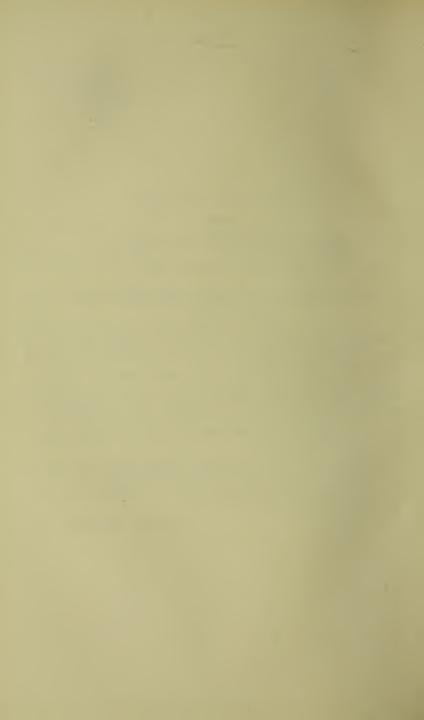
The 7th day of August, 1912.

By the Lords of His Majesty's Most Honourable Privy Council.

Whereas the Council of the Chartered Insurance Institute did, in pursuance of Articles 23 and 24 of the Charter of the Institute, make certain Bye-Laws, which Bye-Laws were approved by the Annual Conference of the Institute on the 7th day of June, 1912; and, in accordance with the provisions of the said Charter, have submitted the same for allowance by the Lords of the Council:

Now, Therefore, Their Lordships, having taken the said Bye-Laws into consideration, are pleased to allow the same as set forth in the Schedule to this Order.

ALMERIC FITZROY.



**** For all statements made, and opinions expressed,

in the papers of this volume, the respective

writers are alone responsible.



THE FUTURE OF INSURANCE IN ALL ITS BRANCHES.

By W. CRICHTON SLAGG, F.C.I.I. (Chairman, Fire Offices Committee).

A Paper read before the Insurance Institute of London, 22nd February, 1915.

I PROPOSE in the course of this paper to touch lightly upon the main divisions of Insurance, referring incidentally to the branches which may be described as subsidiary and to deal finally with the general question of the future of Insurance as a whole.

MARINE INSURANCE.

I think there is no doubt that this is the oldest form of Insurance. It has been suggested that it was practised by the Rhodians in B.C. 800, and it is certain that contracts of bottomry or respondentia (i.e., loans of money on a vessel or cargo to be repaid with interest only in the event of safe arrival) were in common use long before and during the Roman Empire. Moreover, according to Livy, on two occasions the Government of Rome, for the encouragement of merchants who had contracted to supply the Roman armies abroad with munitions and provisions, agreed to bear all losses from and perils of the seas, while the Emperor Claudius, at one period during his reign, undertook to indemnify the merchants importing corn into Rome against similar perils. Thus the action of our own Government in the present war was anticipated, with this difference, that the Romans apparently did not think it necessary to charge a premium. As you are aware, Marine Insurance was first introduced into England towards the end of the 12th century by the

Lombards from Italy, and became general at the end of the 13th century, though the first Act of Parliament on the subject was passed in 1601. The form of policy introduced by those Italians has remained with us to the present day, and indeed the very name "policy" is derived from an Italian word meaning "a note or memorandum in writing, creating or evidencing a legal obligation."

You know that form: it has been described as "hardly intelligible" and "an absurd and incoherent instrument," and, as Lord Mansfield said on one occasion: "This policy of Insurance is a very strange instrument, as we all know and feel." It is wonderful to what uses this form can be put. I have seen it employed in the insurance of a house against fire. The policy began, "upon any kinds of goods and merchandise and also upon the body, tackle, apparel, etc., of and in the good ship 'Jane,'" and ended, "in the villa Rosemary at Clapham." There was no ship to insure, but sometimes, as will be appreciated by some of my audience, it is necessary to pretend that Fire Insurance is something else, and that is why a Marine Policy was employed to insure the villa Rosemary against fire.

With all its imperfections the form of policy has been used so long and such a variety of decisions have centred round it that it is likely to remain for many a day the principal instrument in this country for giving effect to Marine Insurance contracts.

The policy form, then, appears to be fixed and unalterable, but it is difficult with regard to other aspects of the business to foretell what the future has in store. Some of the early developments affecting Marine Insurance will probably be: the displacement by the internal combustion engine of the present type of marine engine; the substitution of oil for coal; the supersession of marine transport by aerial transport. What the effect will be on the rates it is hard to say, though it may safely be assumed that they will continue to be on the low side. It seems impossible, owing to the conditions under which the business is carried on, to arrive at a satisfactory understanding Even when bedrock in this direction had as to rates. apparently been reached, there was a form of competition carried on by means of a set of clauses which indefinitely extended the protection of the Insured at the expense of the

Underwriter, and it was the broker who could offer the most expansive clause who was naturally most favoured. This state of things has been remedied to a certain extent by the adoption, some years ago, of the Institute Time Clauses for the hulls of tramp steamers and, in 1912, of the Standard Cargo Clauses. At present no less than nineteen different sets of clauses for the Insurance of hulls and cargoes are in force. But in spite of these agreements, and of some recent successful attempts to come to an understanding with regard to the Insurance of hulls, it cannot be said that the outlook for Marine business, based on a scientific appreciation, founded on experience, of the value of a risk, is altogether hopeful, and the success or otherwise of operations in this field will depend; as it has done in the past, to a very large extent on the skill of the Marine Underwriter. Let us then take off our hats to that Heaven-born genius who, armed only with an archaic form of policy and an inadequate schedule of rates, steers his way amidst rocks and shoals, torpedoes and mines, and manages to make a satisfactory income for his company and, let us hope, for himself.

Before bidding farewell to this topic it may be well to allude to the possible effect on the business of recent amalgamations. In the last few years eight Marine Companies have been taken over by composite companies, and the process of absorption seems likely to extend. This tendency must result, to some degree, in the dislocation of business, as naturally the Marine Departments will endeavour to secure the Marine business of clients insured in the other departments and vice versa; but, on the other hand, it is not impossible that this advantage may accrue, viz., that the scope of each particular branch of business may be more precisely defined. A certain amount of overlapping has taken place in the past, with the result that it has not always been easy to determine where the protection afforded by the Marine Policy ends and that provided, for example, by the Fire Policy begins; and a successful effort to draw a hard and fast line between the activities of the Marine and the other branches could not but produce beneficial results.

LIFE ASSURANCE.

How difficult it is for the non-actuarial mind to properly grasp the principles, let alone the prospects, of Life Assurance,

will be appreciated by those of you who are not engaged in this particular branch of the business. I should have preferred to have left the subject alone altogether, but there are certain problems arising out of the changed conditions brought about by the war which must suggest themselves for solution to even such an amateur theorist as myself, and, moreover, I am bound by the terms of my instructions to say at least a word or two under this heading. I shall refrain from going into abstruse calculations as to the possible effect which the upheaval caused by the war may have on the immediate future prospects of Life Assurance. I will leave it to actuaries to determine the relative bearing of the depreciation in securities, the higher rate of interest which will now be obtainable, and, in connection with military lives, the increased mortality. Though, thanks to their preparedness for economic disturbance and to the enormous margin of resources beyond mere solvency requirements, there can be no doubt whatever as to the safe position of the British Life Offices and their ability to cope with any situation that may arise, there is likely to be a prolonged period during which the receipts from new business will be materially affected. Increased taxation, an advance in the price of living, and the reduction in the incomes of a large number of the members of the classes from whom the assured are usually drawn, are likely to restrict the demand even for the necessary protection afforded by a Life Policy, while the falling off, which seems to be inevitable, in the amount of the bonus rates will deter those who regarded a participating policy as in the nature of a speculative investment and who will be able to obtain a far more adequate return for their money by investments in first-class securities producing a high rate of interest.

The Life Offices are fortunate in being able to secure that a large proportion of the business which they already have on their books shall remain to them: the surrender value of a policy is not, as a rule, sufficiently tempting to induce the assured to part with his interest except under great pressure, and the consequence is that he will continue to hand over his annual premiums until the time arrives for his executors to draw the sum insured. Existing business may then be regarded as more or less of a continuing quantity, but, as the Offices cannot live by existing business alone, it remains for the

Companies to consider how they can tide over the evil days until the flow of new business again sets in.

How long the depression caused by the war may be expected to last is a matter of conjecture, but, having regard to the very serious disturbance of economic conditions which is likely to occur, the period of depression may extend over several years. That prosperity will eventually return there can be no reasonable doubt and meanwhile some of the smaller and purely Life Companies may seek relief in amalgamation, while others, appreciating the advantages possessed by Offices transacting a composite business, may extend their operations to Fire and other branches of Insurance. An endeavour may also be made to strengthen the position by cutting down expenses, and an interesting paper read recently before the Institute of Actuaries, formulating a system for the analysis of expenses, would appear to suggest a basis for the consideration of this question. I propose, at a later stage, to deal generally with the subject of expenses, but it may not be amiss here to advert to the question of commission in its relation to Life business. I am told that the old agency system is dying, and if this opportunity could be taken of regulating the conditions under which commission is paid, it would be an advantage to the business. Possibly in the dim future a tariff of commissions may be agreed upon and rules laid down as to whom the commission may be paid to, but, as this may involve the question of a tariff of rates and bonuses, it will probaby be a long time before anything effective is accomplished in this direction.

FIRE INSURANCE.

The lines on which Fire Insurance is likely to develop, although it is never safe to prophesy even with regard to such a staid and well-established branch of the business as this, can be more readily prognosticated. I imagine that the time will shortly arrive when the application of a general experience will be extended to the rating of most classes of risks and that the principle of getting back on the swings what you lose on the roundabouts will be a thing of the past. I also think that the rates will be so adjusted that the ratio between premiums and losses will tend to a certain fixed proportion which will only slightly vary from year to year. I leave out of my calculations

the possibility of serious losses from conflagrations which can only be met by the maintenance of large reserve funds and the possibility that through some cause or another the experience with regard to certain classes of risk may present more favourable or unfavourable results at some periods than at others. This is inevitable, as is the circumstance that in the case of a number of Offices engaged in the same class of business, the experience of some, although the same rates may be charged by all, will differ materially from the experience of others. But these are only incidents, and, moreover, the favourable experience in one class is likely to be offset by the unfavourable results in another. I am aware that it may be argued that a cycle of good years is frequently followed by years in which the results are bad, but the experience upon which rates are based must necessarily be obtained from the figures of a number of years, and the result should follow that a percentage will be arrived at which, taking one year with another, will secure the expected returns. There will, of course, always be Underwriters who imagine that they will have no losses, or that their losses will have no relation to the general experience, and the effect of their competition will probably be that the rates will be so adjusted that the balance of premiums and losses will, apart from conflagrations and unusually fortunate or unfortunate occurrences, represent only a very small percentage of profit after the payment of working expenses.

When that stage is reached the profit will be so small that there will be no room for a further reduction of rates, and it will be interesting to see what form competition will take. It seems like a paradox to suggest that there may be competition in the way of cutting down expenses, but I should not wonder if this were to be a feature of the future, whilst attempts to secure business may be made by offering simplified policy conditions, increased facilities in connection with Floating Policies, and the combination of various classes of Insurance.

ACCIDENT INSURANCE.

In a measure it may be said that it is Accident business which affords the brightest prospects of increased activity in the future. I include in Accident business all the various contingencies which are not embraced in the jurisdiction of the

branches I have already referred to. I understand that outside Marine, Life, and Fire business, all is fish that comes to the net of the Accident man. His activities take stock of such varied items as Workmen's Compensation, Personal Accident, Motor Risks, Burglary, Fidelity Guarantee, Bombs and Twins, and he must be prepared at a moment's notice to quote rates for or give reasons for declining all sorts of propositions which have never entered into the calculations of his more fortunate predecessors. The public have begun to recognise that there are certain risks incidental to the conduct of the ordinary affairs of life which it is no longer necessary for them to run and which can be avoided by the payment of an inconsiderable premium, but in discriminating between these different hazards, in determining which are to be declined and which accepted and the rate of premium to be charged, the Accident Underwriter's path is beset with difficulties. He has to consider, on the one hand, what effect a declinature may have, not only on the immediate proposal in hand, but also on the Life, Fire, or Marine business which a disappointed client may remove from his Company; whilst, on the other hand, he has to reflect that too low a quotation for a particular risk may upset the Company's results throughout the whole Insurance Field. It is no good charging an appropriate rate for, say, Fire, Employer's Liability, and Personal Accident, if Burglary is done for next to nothing, for the result will be that the business taken as a whole will be unremunerative.

How, then, is the unhappy Underwriter to be relieved of some of the responsibilities of his position? I am inclined to think that it will be by an extension of the principle of co-operation. I understand that there are already in force agreements for regulating Workmen's Compensation and Motor business, based on the experience of a number of Offices spread over a considerable period of time, which have proved satisfactory to the Companies which are parties to them. I apprehend that in the interests of these agreements it will be necessary from time to time to add to their number as other branches of Accident business loom large in the public eye. In this way only will it be possible to prevent existing business from becoming unremunerative in the way to which I have alluded.

In connection with Accident business there are certain forms of Insurance about which a word may not be out of place. I

refer to what I may call the more gambling elements, and by this I mean that although the policies which cover them are in their nature contracts of indemnity, the risk insured against is of such a character that it is impossible to calculate, on any established basis, the rate of premium required to reimburse the Underwriters. I refer to such hazards as the Birth of Twins, the damage resulting from a wet summer, and war risks. Perhaps it is wrong to say that the probability of the Birth of Twins is based on no scientific deduction. I have heard that the question of heredity plays an important part in the fixing of the premium, and that a higher rate is charged where the circumstance that twins run in their family can be brought home to either parent.

But it is with regard to risks arising from bombardment, or the dropping of bombs, or other acts of an enemy that the greatest uncertainty as to the proper premium to be charged must necessarily exist. It is obvious that the people who most desire to be insured are those who are most likely to be affected, and while it might be possible to guess at a rate which would be adequate were the insurances spread over the whole country, it is almost out of the question to appraise the rate which should apply to seaport towns and cities like London which are likely to be attacked. The ignorance which existed before the war as to the probable results of Zeppelin and other hostile raids might have deterred the boldest Underwriter from hazarding a guess as to the consideration he would require for covering the risk. It was possible to imagine that a large part of London might have been destroyed, and it is certain that if this eventuality had occurred there would have been few Insurers who, if they had accepted an assortment of risks in that city, would have been in a position to meet their liabilities.

I understand that a number of Fire Companies have refused to undertake the risk, a decision which seems eminently justified, having regard to their obligations to their shareholders and policy-holders. The Insurance of war risks is no part of their business, and it would be a difficult matter to give a satisfactory explanation to the shareholders if a considerable portion of their resources had to be devoted to the payment of claims arising from the acceptance of this business.

Moreover, the position of Fire policy-holders would be seriously prejudiced were the funds which are supposed to be available for meeting their claims hypothecated for a different purpose altogether.

Incidentally the question arises as to the attitude of the Government in connection with losses sustained through the acts of the enemy. A Commission has recently been appointed, and it is gratifying to Insurance men to know that the General Manager of the Alliance is one of the members, to go into the question of the payment to be made to the sufferers through the recent raids on the East Coast. Whether this Commission is intended to give relief only to those who are uninsured or are unable to help themselves, or whether it is to consider the whole subject of Compensation, I am unable to say, but it is certain that, if a full measure of relief is afforded to anybody, some people who took the precaution to insure will regret that they needlessly parted with the premium.

INSURANCE GENERALLY.

I have now arrived at a stage at which the most convenient course would seem to be to endeavour to deal generally with the future of Insurance as a whole, and in this connection one or two headings suggest themselves as forming the most suitable bases for the consideration of the subject.

First of all I would refer to expenses.

The question of the reduction of expenses will be one of the most serious problems of the future, and if the balance of premiums over losses will more and more tend to approximate to a definite and reduced standard, it is in connection with the saving of expenses that successful results must be looked for. It is difficult indeed to suggest how the present expense ratio can be reduced. The cost of clerical labour is likely to increase, if anything, and though amalgamations between Offices might bring about a certain decrease in the cost of the business, they cannot be reckoned on as a serious factor. It is possible that something might be done in the direction of a saving of rent by the employing of the greater part of the staff in premises away from the Head Office, thus allowing a portion of the highly rented buildings, which must necessarily form headquarters, to be let to other tenants.

It may also be hoped that sounder views may prevail upon the subject of the appropriation of the business of other Companies. The cost of obtaining such business, involving as it does the employment of a number of officials, is often excessive. It is at least doubtful whether the business, when obtained, is worth the cost of obtaining it, and whether it does not often fall out under present conditions that if a certain amount of business is secured from one Company, an equivalent or a greater amount is not infrequently lost to the same Company or others.

Take again the question of Local Directors. There is a town in Scotland where the headquarters of a Scottish Insurance Company is established, the population of which is said to be chiefly composed of Directors of English Companies. I am told the Local Directors are frequently appointed on account of the business they are expected to bring in, and in many cases the sole object of their appointment is the detaching of a particular connection. It is obvious that lucrative business will not be detached without a struggle: it results that whether the particular interest is transferred or retained the effect will be that the cost of that particular business will be seriously increased

COMMISSION.

One of the questions which, in connection with that of the saving of expenses, will probably receive attention in the future is the system of the payment of commissions.

Commission was in its initiation intended to be remuneration for the procuration of business, but matters have gradually arrived at such a stage that in many cases it amounts to nothing more than a discount off the rates. It is difficult to justify this development, and there is no doubt that it has caused a good deal of dissatisfaction amongst the old class of agents and those who obtain their living by the introduction of business. The Brokers Bill, which it was intended to introduce into the House of Commons last Session, contained a provision making it a penal offence for anyone to receive commission unless he was a properly registered agent. Such a provision might be expected to produce a good deal of opposition, but the fact that such a Bill had been contemplated indicates that the grievance is felt, and possibly in the future it may not be too much to hope that something may be done to put matters on a more satisfactory basis.

Another feature which strikes one as anomalous in the

present-day conditions is the practice of allowing an identical rate of commission whatever may be the nature of the business secured. The Life Offices discriminate between new business and renewals, allowing a reduced rate for the latter, whilst in the case of Fire and other branches the commission is identical in both instances. This may be due to the fact that as regards those branches business is almost as difficult to retain as it is to secure, but there are many cases in which the labour involved in dealing with a proposal is infinitely greater than it is in others, and yet the rate of commission is the same in all. would refer also to those Insurances which under the terms of some lease or settlement are made the perquisite of some particular Office: under such circumstances the payment of an annual commission can scarcely be regarded as a reward for services rendered. It is to be hoped that in the future some method may be arrived at of differentiating between the amount of commission to be paid.

Comprehensive Policies.

Of recent years there has grown up a demand for Policies embracing various kinds of risks. I have before me a form of Policy which includes Fire and Explosion, Storm and Tempest, Subterranean Fire and Thunderbolt, Burglary, Theft, Larceny, Housebreaking, Damage by Insurrection, Rioters, Civil Commotion and Suffragists, Damage caused by Aeroplanes, Bursting of Pipes or Water Heating Apparatus, Employers' Liability, and Indoor and Outdoor Servants.

Now, of course, it is a convenient thing to be able to include all your insurances in one Policy, but I am not sure whether the advantages either for the Insurer or the Insured altogether outweigh the disadvantages. The Insurance Companies are rapidly becoming general emporia, and are thus in a fair way to resemble the larger stores. The success of a number of the stores shows that purchasers like to be able to buy their goods at one establishment, but the advantages of weighing out the sugar or tea with the fish scales have not yet been demonstrated. In the same way, although individuals may like to obtain their insurance goods from one emporium, it is a moot point whether, having regard to the varying conditions required in connection with each item of insurance, the "Comprehensive Policy" is altogether a satisfactory instrument. Is it expedient to suggest

to the public that they can obtain a Policy which will protect them against every imaginary risk? The natural tendency will be for Offices or Underwriters, in order to secure business, to throw in an extra item or two at the same rate as their competitors charge for a more limited selection, with the result that every possible contingency will eventually be included at what may be a totally inadequate rate. The satisfactory course would seem to be for the Insured to send in a list of his requirements and for the Office to arrange that he should have a separate Policy protecting him against each item for which he desires security, though in certain cases it would be no doubt possible to include several items in one policy. It should be sufficient for the public, whose chief desire is that they may be able to complete all their Insurance business in one transaction and at one time, that facilities should be given to them for sending in their orders to one centre, and it would then be the duty of the Insurance Company, to pursue the analogy of the general stores, to hand out the order to each department and to furnish the customer with a complete parcel of the goods required. Another objection to Comprehensive Policies is this-an Insurer may be particularly undesirable from one point of view. He may live in a burglarious neighbourhood or continually have trouble with his water pipes, though in other respects he may be eminently acceptable. It is difficult to tell such a man that you want to eliminate burglary or water pipes from his Policy—he will probably go elsewhere, whereas if he were not insured under a Comprehensive Policy it might be easy to retain the desirable business, and furnish some reasonable explanation for the non-renewal of the less desirable items.

LEGISLATION.

The possibility of Government interference which might injuriously affect the business of Insurance cannot be left out of account in an endeavour to foretell the future. I see that on the agenda for the I.L.P. annual conference to be held at Norwich in April there is a resolution calling for the nationalisation of Insurance Companies. This interference might have two objects, the first to protect the interests of policy-holders, and the second to provide a remunerative field for the operations of a Government department. As regards the first,

something has already been done in this country by the Acts which protect the interests of Life Policy-holders, and more recently by the Assurance Companies Act. With respect to the second, the Government have not, except in the case of Marine War Risk Insurances, which were of a special nature, entered the Insurance arena.

It will be conceded that upon the whole the Act of 1909 was not a measure to which exception can be taken. It was designed, inter alia, to deal with the case of those Companies which with a totally insufficient capital had endeavoured to use the good name of British Insurance Offices to further their own nefarious designs in the Home and Foreign fields. I am inclined to think that it has achieved its object, and that unless circumstances arise which would compel a fresh consideration of the subject, no further legislation, unless by way of amendment of the original Act, will be attempted. The credit of the British Companies stands so high throughout the world that it is not to be imagined that any Government would think of curtailing or harassing their operations; a jealous eye might certainly be cast upon the funds which have accumulated, but it must be realised that the possession of such funds is absolutely essential for the purposes of meeting such disasters as that caused by the San Francisco earthquake, while the fact that the Companies are enabled through the magnitude of their resources to subscribe liberally to emergency loans, such as the recent war loan, makes them a valuable asset to the country. I would mention incidentally that it is not only finacially that they are able to assist the country in an emergency. I think that I am within the mark when I say that they have sent out at least 30 per cent. of their staffs to fight their country's battles. As regards the second point, that of the possible entry of the State into direct competition with Insurance Companies, it is not a contingency that can be altogether ignored. The experiment has been tried by one Colony, New Zealand, and recently by Uruguay, and there are some countries in Europe the Governments of which undertake certain classes of Insurance. I have no information as to the results except as regards New Zealand, and the figures available for the Dominion do not enable me to judge of the success of the experiment, though a certain amount of progress is indicated, and it is claimed that some of the rates have been reduced.

These figures would, however, hardly appear to show that the State is a very serious competitor to the Companies, and I do not anticipate that the disease will spread to this country, where even in these days there seems to be no inclination to interfere with the individual or corporate effort provided that the conditions under which business is carried on are regarded as satisfactory. There might be a temptation to a Government to endeavour to secure some of the profits which are earned through the operations of the Insurance Companies, and in order to avoid expense they would probably avail themselves of the existing organisation in one of the Government Departments. But it must be remembered that the officials in a Government Department do not necessarily possess the qualifications which go to make up the successful Underwriter, and that the experience requisite for conducting such a business as Insurance can only be acquired after years of labour.

I have not overlooked the success which has so far rewarded the Government's recent entry into the domain of Marine Insurance, but their intervention was due to a desire, by offering facilities which otherwise would not have been forthcoming, to encourage the continuance of a trade which was essential to the well-being of the country. They were in no sense in competition with established institutions.

This is quite a different matter from a competitive scramble for business, and although it would be foolish to ignore the possibility that some day a Government, anxious to earn an honest penny, might turn its attention to the business of Insurance, I think that for the considerations I have mentioned the danger is remote, and that a Government would have to be very hard pressed before it interfered with an industry which is now one of the most important in the country.

MUNICIPAL ACTIVITY.

But while we may, I believe, ignore for the immediate future the possibility of Government interference with the business, I entertain a considerable doubt on the subject of Municipal activity. A good many local bodies have in the last few years obtained powers to insure their own property against fire, while in one or two instances attempts have been made to obtain permission to transact a general Insurance business. I believe that the latter attempts have failed, but they may be repeated, and the Companies should be prepared to resist any attempt by a Corporation to use the rates for competing in a business which

is carried on by a considerable number of the ratepayers. There may not be the same objection to a Corporation electing to insure its own property if it thinks fit to do so, but there will always be a danger, should one serious fire occur, of imposing a very heavy burden on the ratepayers. It might, of course, be arranged that a certain amount out of the rates should be set aside every year to meet the liabilities which might arise, but even so, there is always a risk that fire might occur before a sufficient fund had been accumulated, in which case not only might it result that the fund would be absorbed, but it might be necessary to impose an additional rate to make good the deficiency.

An obsession which is common with public bodies is that it should be the privilege of Insurance Companies to contribute towards the expenses of Municipal undertakings from the workings of which they are supposed to derive benefit. I do not know that Life Offices have yet been called upon to contribute to hospitals, Marine Underwriters to lighthouses, or Burglary Companies to the upkeep of the police; but it has frequently been contended that Fire Insurance Companies, because they derive a benefit from the services of fire brigades, should be called upon to contribute towards the expenses. This is a fallacy, inasmuch as the protection of life and property is a public duty, and as such it should in the interests of the community at large be discharged at the public expense.

Time does not permit of my pressing this subject further, but it is hoped that in the future Municipalities will take a more correct view as to the obligations of Insurance Companies.

Gentlemen, I have nearly done, and you will be grateful. The future of Insurance will possibly be very different from anything that I have imagined. It lies to a very great extent with yourselves, and probably one of the greatest factors in shaping that future will be the influence of the Insurance Institutes. Offering as they do educational advantages never enjoyed by your predecessors, they cannot fail to exert that influence more and more as time goes on. With the application of more scientific methods to the solution of the various problems that present themselves, the profession will continue to gain in dignity and strength. If this gain is accompanied by the maintenance of those sound principles which have characterised the conduct of the business in the past, the future of Insurance is assured.



REVERSIONS AND LIFE INTERESTS.

By HERBERT R. STURT, F.I.A.

A Paper read before the Insurance Institute of Bristol, 13th December, 1912.

In submitting for your consideration this evening the following remarks, I have felt some diffidence arising from a feeling that the subject with which they deal is one with which many of you do not frequently come in contact. On consideration, however, I venture to hope that my observations may be of some interest to you, firstly, as dealing with a large and remunerative field for the investment of Insurance Companies' Funds, and secondly, and more particularly, in view of the numerous and large Insurance Policies which are effected in connection with this class of security.

Reversionary Securities, not producing any immediate income, like the majority of investments, such as Stocks, Shares, or Mortgages, etc., do not commend themselves to the general public, who usually look to their investments for a current source of income. There is, moreover, in the purchase of an isolated reversion an element of speculation, the uncertainty as to the time which will elapse before it falls in, which renders such a purchase unsuitable for a private investor. Neither of these objections obtains in the case of a large Company having funds for which it is desirable to find a comparatively permanent investment with a satisfactory yield, and it follows that such securities form a very suitable outlet for the funds of Life Assurance Companies.

The extent to which these institutions have availed themselves of the opportunity presented is illustrated by the following figures, which are extracted from the Board of Trade Returns, in respect of Companies established in the United Kingdom, for the year ending 31st December, 1911, showing the amounts held by these Companies in this class of investment.

Reversions and Life Interests Purchased . £10,354,102 Loans and Reversion and Life Interests . 16,659,286

Total £27,013,388

From the point of view of the business-getting insurance man, if I may use the phrase, the amount and class of Life Assurance business which is an almost invariable adjunct to these reversionary transactions would seem to suggest that the subject is one which almost as intimately concerns their side of the business as it does that of the officials who deal with the Companies' financial arrangements. In order, however, to successfully negotiate, even in a preliminary way, a transaction of this class, it is not only desirable but essential that one should have some knowledge of the technical points which are likely to arise.

The advantage of being able to discriminate at an early stage between those which may be and those which are certainly not susceptible of being dealt with is obvious. The ability, moreover, to elicit the necessary information at first hand, and possibly to make suggestions for dealing with a particular security to meet an applicant's requirements in a practical manner, will often be of the greatest value.

With these few remarks in justification of my choice, I will do what I can to collate such information as I have by experience found to be important, and must ask those of you who are already familiar with the subject to bear with me if you find much that is elementary and little that is original.

These interests usually arise by direct limitation in a Will or in a Deed of Settlement, and in either case a trust is created, that is to say, certain persons—the Trustees—are the legal owners of the property included in the Deed or Will, but they must administer it for the benefit of certain other persons who are the beneficial owners according to the terms of the instrument. One of the most important duties of the Trustees of a fund is that of retaining or selling the securities in the Trust fund and making the necessary re-investment, having

regard to the interests of the beneficiaries who, although the people most practically concerned, have no legal voice in the matter. The powers of Trustees in this direction are, however, limited, usually by the instrument itself, but failing this, by Act of Parliament. If no specific powers are given them, the power of re-investment only extends to such securities as are from time to time declared to be trustee securities under the Trustee Act, 1893, and the Colonial Stock Act.

In most of the lists of stocks issued by stockbrokers you will find certain stocks marked as being in this category, and they only include securities which, while producing a comparatively low yield, are generally free from risk of sudden fluctuations which sometimes attaches to securities bearing a higher rate of interest.

The forms in which interests in property are limited are numerous, but the most general outline is a limitation to a person or certain persons for life, and on the death of such person the corpus of the fund is to be paid to someone else or divided among a number of beneficiaries in certain shares. It sometimes happens that two or more persons are entitled to successive life interests before the corpus is divided. In such a case all the life tenants except the one in possession are entitled to reversionary life interests.

The interests to which the reversioners are entitled are either Absolute or Contingent. In the former case, upon the falling in of the reversion, *i.e.*, the death of the last life tenant, a reversioner's share becomes payable irrespective of any event or contingency which may have occurred in the meantime. It is not necessary for a reversioner to survive the life tenant, as in the event of his pre-deceasing the latter the amount is payable to his estate.

In the case of contingent reversions the payment of the reversioner's share is dependent upon some event which may, or may not happen, the most common contingency being that the reversioner shall survive the life tenant. Often it is a condition that he shall survive some other person, or that some other person shall pre-decease the life tenant. I will mention some of the usual contingencies when I come to the question of the methods of dealing with these interests.

I will now refer more in detail to the characteristics of the four kinds of interests I have mentioned, namely—Absolute

Reversions, Contingent Reversions, Life Interests in Possession, and Reversionary Life Interests, and the methods in which they can be practically dealt with.

ABSOLUTE REVERSIONS.

Absolute Reversions are by far the most usual of the four, and they can be dealt with by way of purchase outright, by purchase of a definite sum forming a first charge over the reversion, or by way of loan.

Since these reversions are not liable to defeat, no policy is absolutely necessary to perfect the security. It is, however, of considerable advantage to the reversioner to effect a policy which will serve to replace the reversionary capital which he is anticipating by the sale or loan, and in discussing such a transaction it is always advisable to bring this point of view to the notice of the prospective vendor or borrower. It sometimes happens that a reversioner does not feel in the position to burden himself with the obligation to pay interest upon a loan, while he is loth to part entirely with his reversion by sale, owing, perhaps, to his attaching a higher value to the reversion than the purchasers are willing to give, or by reason of his anticipating, for special reasons, that the reversion will fall in at an early date. The requirements of the reversioner in such a case can often be met by his selling the reversion or a reversionary charge, but reserving an option during, say, three or five years to re-purchase the reversion for certain fixed sums. Where such an option is reserved the original price will not, of course, be so high as in the case of a purchase outright.

The method of selling a reversionary charge is advantageous in cases where the amount wanted is less than the full value of the reversion, and when the investments constituting the fund are of an unknown or slightly speculative character. In this case an investor will not care to deal with a security whose value may fluctuate unduly; but he can sometimes with safety purchase a reversionary charge well within the minimum value of the fund so as to protect himself against loss by depreciation, and by this means the reversioner does not stand to lose the advantage which may be derived from the appreciation of the securities.

I am considering the matter always from the point of view of an investor. A private person might, of course, purchase a reversion to a fund wholly speculative in its nature, buying it simply as a speculation.

The right of re-purchase I have referred to above is occasionally spoken of as a right of redemption. The former is, I think, preferable as leaving the nature of the transaction free from doubt. As you are probably aware, an English Legal Mortgage takes the form of an absolute assignment, subject, however, to certain provisos. The right of redemption possessed by a mortgagor is a right which was given, not without some trouble, by the Courts of Equity, which thereby remedied the injustice which in the early days was a feature of mortgage transactions, namely, that if the mortgage debt was not paid on the day fixed the mortgagor had no further right to the property, whatever might be its value. So strongly was this right, called the "Equity of Redemption," insisted on that no provision in a mortgage deed can divest a mortgagor of it. The idea is expressed in one of the legal dicta-" once a mortgage, always a mortgage." Now when we refer to the "Right of Redemption," there is a suggestion that the transaction is a mortgage, and if the Courts were to hold the transaction to be a mortgage owing to the method in which the deed was drawn, they would also insist that the "Right of Redemption" could not be terminated at the end of the three or five years, as the case may be, and the purchaser would find himself with an investment which might prove a loss, and could not, owing to the option of redemption, result in a profit.

CONTINGENT REVERSIONS.

When we come to deal with Contingent Reversions there is always some contingency which may defeat entirely, diminish, or defer the reversion, and in order to render such an interest a satisfactory security it is necessary that a policy shall be effected to cover the risk, that is to provide for payment in the event of the reversion being defeated or diminshed in value by the happening of the event on which it depends.

The most common form of Contingent Reversion is that where a sum is payable on the death of the life tenant, provided the reversioner survives him. In such a case a contingent survivorship policy, under which the sum assured is payable on the death of the reversioner, should it take place before that of the life tenant, has to be effected to perfect the security, the amount of such policy being not less than the sum in reversion. When the full lending value of the reversion is not required in cash, but the annual outlay on account of the loan is required to be as low as possible, it is advantageous for the policy to be effected at a single premium, the additional amount required for this purpose being borrowed if necessary. This form of interest arises when a fund is left to such of a certain class or number of persons who shall be living at the death of the life tenant, the shares of such persons who pre-decease the life tenant going, of course, to the survivors.

Again, a reversion will often be defeated by the birth of issue to another person, the limitation being made to the reversioner only in the event of such other persons having no issue. A policy can, of course, in many cases be issued against this risk when it is remote. Where the reversioner is entitled to a share as a child of the life tenant or another, his share often stands to be diminished by brothers or sisters being born who will share equally with him; for instance, if he is at present contingently entitled to the whole fund as an only child, his share may be diminished to one-half in the event of the birth of a brother or sister, who will share equally with him, and this risk is in addition to that of his losing the interest by predeceasing the life tenant himself.

A condition met with in large family estates is that the rever sioner shall, in order to succeed, adopt a certain name and arms. In such a case he convenants to adopt such name and arms, and not to discontinue their use, and a policy is effected against the risk of his doing so.

A reversion will, in some cases, be deferred in the event of the re-marriage of the life tenant, he or she having a power to appoint a life interest to any wife or husband he or she may leave surviving. As such wife or husband may be comparatively young, the reversion will be very considerably reduced in value by such a condition. When the risk is practically small, an Indemnity Policy, payable on the death of the life tenant in the event of such an appointment being made, will render the security a negotiable one.

An interesting form of contingent reversion arises sometimes out of the practice of entailing landed estates. This interest is what is known as a base fee (i.e., a fee simple conditional). I believe that exasperated students of the rather intricate legal aspect of this security have called it harder names, but that is by the way. The present process of entailing estates arose from a struggle between the legislature on the one hand, which tried to prevent land being tied up indefinitely, and the landed proprietors on the other hand, who naturally resisted any encroachment on their existing rights. I need not go into the Acts which led up to this, but the present arrangement is somewhat as follows:—

Suppose A to be the owner of a large landed estate. He is anxious to keep this estate as far as possible in his family in succeeding generations. The law will not, however, allow him to tie it up, that is make it inalienable, for a longer period than the life or lives of living persons, and the minority of someone who must be born during such lives, practically 21 years, after the failure of the last life.

In order to achieve his object he settles the land on himself for life and after his death to his son in tail, who until A dies is tenant in tail in remainder. Now until A dies his son cannot disentail the estate, that is, obtain absolute possession without A's consent, but if the matter remained so on A's death B could disentail the estate and alienate it if he desired. What happens, however, is this, that when A's son attains his majority his father finds it not difficult to stipulate, in consideration of his providing immediate funds, that the estate shall be disentailed and re-entailed by his son in the same way. It is now tied up until the death of A's son, and the process can, of course, be again repeated.

Now, I have said that during the life of A his son could not, without his father's consent, disentail the estate and obtain absolute possession, *i.e.*, what the lawyers call the fee simple. He can, however, without such consent, convert his interest into a base fee, that is a fee simple, conditional on his having heirs, that is to continue until his heirs of the particular class fail. In order to complete the matter he has to execute a further disentailing deed as soon as his father is dead. The interest thus becomes a reversion payable on the death of A, providing his son survives him and lives to execute this further

disentailing deed. In order to deal with such a security as a Contingent Reversion, the following precautions have to be taken:—

(1) A policy is effected on the life of the reversioner (in this case A's son), payable if he die during the life of A or within six months after; this is to give time to execute the further disentailing deed.

(2) The reversioner covenants to execute such a deed

immediately on his father's death.

(3) A Power of Attorney to execute this deed is given to a number of persons nominated by the purchaser of, or lender on, the reversion, in case A's son fails to do so.

LIFE INTERESTS IN POSSESSION.

Life Interests in Possession can be dealt with by way of loan or purchase, a whole-life policy on the life of the life tenant being necessary in either case to replace the capital invested.

The income must be such that it will provide interest on the loan or purchase money and the premium on the policy, which in such case is preferably a non-profit one, as borrowers, as a rule, desire to keep the annual cost as low as possible. The risk, where the fund is at present in high interest-bearing investments, that a re-investment will be made to produce a lower rate has to be taken into consideration.

In this connection one is sometimes asked to lend on, or purchase, government or other public pensions, and I believe I am right in saying that without special arrangements such pensions cannot, as a general rule, be dealt with in any way.

REVERSIONARY LIFE INTERESTS.

When dealing with Reversionary Life Interests, as in the case of Life Interests in Possession, it is necessary that a policy on the life of the reversioner should be effected; and it is to be noticed in the first place that the policy must be effected at once, and in the second place that the amount of such policy will be very large compared with the amount to be given for the purchase of such an interest.

When a Reversionary Life Interest is purchased, the purchaser, in order to protect the security, will have to effect a

policy on the life of the reversioner for an amount sufficient to cover not only the amount of the purchase money paid to the vendor, but also the sums which he will have to pay to maintain the policy in force until the life interest falls into possession and interest on his disbursements for the same period, since there is no provision for these.

As an illustration of this I will consider a particular case. Suppose a man aged 30 is entitled to a reversionary life interest to commence on the death of a lady aged 60 in a fund producing £1000 per annum.

A policy will have to be effected for £14,700, and the purchase price would be £4780, and the transaction works out on a 5 per cent. basis as follows:—

Purchase price	£4,780
Sum to be paid by the purchaser to provide	
interest on his capital invested and	
premium on the policy during the joint	
lives, i.e., until the policy becomes a	
claim, or life interest falls into	
possession	8,920
1st premium on the policy	300
Total amount invested .	£14,000

After the life interest falls into possession the income will provide:—

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Interest at 5% on sum invested £14,000 £700
Premium on policy for £14,700 £300 £1,000
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£14,000, then, is the amount which the investor disburses, and consequently a policy must be effected to replace this and also a year's interest on the outlay.

The investor might, and frequently does, provide for the interest on premium during the joint lives by the purchase of an annuity during that period, and in such a case the single premium for such an annuity would be the amount so invested.

These figures are only approximate, in order to give a general illustration of the point at issue, and would not represent exactly the position in a particular case, which would, of course, be subject to the special circumstances.

Reversionary Life Interests are seldom if ever dealt with by

way of loan unless the interest and premiums can be independently provided for by a definite charge over some other security, because the large policy necessary would make the annual payment for interest and premiums prohibitive.

The necessity in a loan transaction of effecting a policy at the outset, large enough to cover accumulations, is seen by consideration of the position if default should be made by the borrower.

One of the following courses is then open to the lender:—

(1) He may pay the interest and premiums himself, in which case the policy will have to be large enough to cover such payments.

(2) He may sell the Reversionary Life Interest, in which case the purchaser would be in the same position.

He cannot defer effecting the full amount of the policy until default actually occurs, as the borrower may by that time be uninsurable.

A method which is frequently adopted in Reversionary Life Interest cases is to purchase an annual reversionary charge of a fixed sum per annum, forming a first charge on the Reversionary Life Interest, the vendor having the option of re-purchasing the charge at any time before the reversion falls into possession on payment of certain sums representing the total amount invested by the purchasers with interest. In such a case a policy is effected or set up at the commencement, and on re-purchase will be assigned to the vendors.

LIFE INTERESTS IN CONJUNCTION WITH REVERSIONS.

Occasionally an offer is made to sell the life interest in a fund and the reversion to it at the same time. When the two interests are combined they practically amount to the sale of the fund, and the value which can be given for the two interests will be slightly higher than that which could be given for the two interests separately. The reason for this is that the reversion takes the place of a life policy in protecting the security, and obviates the necessity of effecting such, and the consequent additional expense.

In cases where a larger amount is required by way of loan upon a reversion than the present value of the reversion will warrant in the ordinary way, it is sometimes found that the life tenant is willing to give a charge over the income of the fund to provide for payment of interest and, if necessary, premiums, and by this means the difficulty is got over.

It must be observed, however, that a charge by another person than the life tenant over a life interest or annuity will not answer the purpose, as such annuity may terminate before the reversion falls into possession, and in this case there is no provision for payment of the interest from that date until the life interest falls in. The annuity to be charged must automatically terminate at the same time, or certainly not earlier than the date when the reversion is payable. Further, the income to be charged must be sufficient to cover the requirements of the loan for interest and premiums.

PRELIMINARY CONSIDERATIONS.

When one is approached with reference to an advance upon, or the purchase of, a reversion or life interest, there are a number of preliminary matters to which consideration must be given, because, in many instances, independently of the question of value, there are circumstances which render the security an undesirable or impossible one to deal with.

I now propose to discuss some of the principal points which arise at the initial stages of the negotiations. I may say at the outset that it is always advisable that a clear statement of the interests to be dealt with shall be furnished with the assistance of a solicitor who is familiar with the trust.

One of the first things to ascertain is whether there is any direct restraint against anticipation imposed by the instrument creating the security. It is a matter which will, of course, be investigated by the solicitors when they come to deal with the title, but it will obviate much trouble and expense to settle such a question at the outset.

The question of the trusteeship of the fund is a most important one, and the names and occupations of the trustees should be ascertained. Trustees have frequently wide discretionary powers, and if they are unscrupulous or slack the consequences may be serious.

There should be not less than two capable trustees. Sometimes, although there are several trustees, it will be found that the administration of the fund rests practically in the hands of one of them, the others being either too old to take any active part in the trust, or by their occupation being ignorant of business methods. For the latter reason ladies, as a rule, are not usually satisfactory in this capacity.

Again, although there may at the inception of the trust have been more than one trustee, some may have died or retired and not have been replaced.

When a reversion is being dealt with it is unsatisfactory for the reversioner to be a trustee, as any liability he may incur in his capacity as trustee will fall in the first place on his share, and it is necessary to observe that he is not only liable for breaches of trust made by himself in ignorance, but also, in the absence of any provision to the contrary in the instrument, for those made by his co-trustees. In such a case it is a very usual stipulation that he shall retire from the trusteeship.

It is a less unsatisfactory feature, but one which deserves consideration where the life tenant is a trustee, the reversion being in question. It is clear that the personal interest of such a trustee will lie in the direction of investing the fund in high-interest bearing securities, so as to yield the highest income; but the higher the yield, as a general rule, the less is the security for capital; and moreover, where part of the fund consists of property, the costs of repair may be cut down and thus the reversion starved at the expense of the life interest. The reversion may thus be rendered a more speculative one than would otherwise be the case.

The next point for consideration is one which I have mentioned earlier, namely, the extent of the powers possessed by the trustees of re-investing the fund. These powers are usually laid down in the deed or will under which the interest arises, and the clause under which these powers are derived should be scrutinized carefully. Even where the past administration of the fund has been on the safest possible lines, there is a possibility that at a future date, when perhaps the present trustees have been superseded, investments of a speculative character may be made to the full extent of the trustees' powers. Such investments may or may not be advantageous to the beneficiaries, but they cannot fail to prejudice the position of a mortgagee of the reversion.

If no specific powers are given in the instrument, they are limited by the Trustee Act, 1893, and the Colonial Stock Act,

1900, and the Trusts (Scotland) Amendment Act, 1884, to such stocks as are from time to time declared to be trustee securities. Difficulties arising in connection with the trusteeship of reversions can frequently be obviated by the appointment of the Public Trustee.

The financial status of an applicant for a loan on a reversion, and his reputation for meeting his ordinary financial engagements, are of considerable importance, as, unless interest is likely to be punctually met, the transaction will probably be an unsatisfactory one, and foreclosure may have to be resorted to or the loan called in. As a sidelight on this point, and for other reasons, it is advisable to ascertain the object for which the money is required, and particularly if it is being raised for the benefit of the applicant, as if this is not so there may possibly arise a question as to whether the vendor understood the transaction, and whether unfair advantage has not been taken. For this reason it is usual to stipulate that where the borrower is a lady she shall take separate legal advice.

Where the reversioner is resident abroad, or where the deed or will under which the interest arises was executed abroad, it is not unlikely that its provisions will be regulated by foreign laws, and this is a feature which is generally undesirable.

In the case of very small reversions, as, for instance, where the fund, or share of the fund, does not exceed £100, the expense of dealing with the matter will usually be found to be prohibitive. In such a case it is not unlikely that the title will be as complicated as that of much larger estates, and the legal expenses are therefore so large as to absorb the greater part of the purchase money or loan.

When the reversion is a contingent one, or when a life interest, either in possession or reversion, is in question, it is essential that the reversioner or life tenant, as the case may be, shall be assurable, and the expense will, of course, be greater if they can only be accepted at an extra premium.

If the reversion is to the whole or a share of the fund, it is necessary to ascertain whether there are any charges or deductions which take precedence of, or rank equally with, the reversion in question. The whole fund may be subject to a mortgage or a rent charge, or there may be, where the interest is derived under a will, certain legacies to be paid out of the fund.

If a legal mortgage has already been given over the interest, the position of anyone who should make a further advance upon the security is prejudiced, not only by the decreased value of the security offered, but by his legal position as second mortgagee. You are probably aware that there can only be one legal mortgage over a security at one time, and such mortgage vests the legal ownership in such mortgagee. All other mortgages must be merely equitable. I need not go into the disadvantages of the position of an equitable mortgagee, but I may say that when an Insurance Company is dealing with this class of security, it almost invariably insists on having a first legal mortgage. The difficulty can, of course, frequently be obviated by either the existing mortgage being postponed, or by a sufficient amount being advanced to enable it to be paid off.

INVESTMENT OF TRUST FUND.

I now propose to say a few words in detail as to the investments constituting the trust fund, a matter of primary importance in reversionary transactions. If the fund or part of it is invested in land, this may be, of course, freehold or leasehold. The value to be placed upon freehold land from the reversioner's point of view, or that of his assignee, is a matter requiring a good deal of consideration. It will generally be found that there is a valuation of the property, more or less recent, made for probate or for some other purpose, as, for instance, the Land Valuation Scheme. The date of this valuation and the purpose for which it was made must be considered, and it must be borne in mind that the value to be placed on the property is that which it may reasonably expect to produce when the reversion falls into possession, which may be 20 or 30 years hence. At a time when there is a strong tendency in many localities for the value of land to depreciate, it is easy to be too sanguine as to its ultimate value. In many cases it is necessary to have a fresh valuation made by a valuer nominated by the purchaser of the reversion.

Leasehold property, unless the unexpired term is long, and the age of the life tenant is advanced, is of little, if any, value in a reversion. It is a depreciating security, and its value may, and in many cases probably will, have reached the vanishing point before the reversion becomes payable. A very usual form of investment for trustees, less usual I believe than was at one time the case, consists of advances on mortgage, and it is an all too frequent experience that trustees do not exercise sufficient supervision in selecting and retaining such investments. In many instances, although the mortgages were originally well secured (and especially where the advances have been made on land or house property), they have been allowed to remain at the same figure, while the security for them has rapidly depreciated, with the result that they cannot now be called in easily, and sometimes to such an extent that a sale or foreclosure would result in a loss. When the mortgages are in a fund the life interest in which is being considered, the income will, of course, depend on the regularity of payments of interest by the mortgagors. In any case, definite evidence of the security for any mortgages in a trust fund must be forthcoming before it is safe to deal with any interest in it.

The majority of trust funds include, and it is very desirable that they should include, a fair proportion of Stock Exchange securities. The stocks, shares, or debentures included in the fund should be of a class which are not subject to violent fluctuations, and should be such that information as to the issuing Company and the stocks can be readily ascertained, from time to time, from the usual reference books. With regard to the first point, it is undesirable that there should be a large proportion of ordinary shares of trading or even public companies, such as railway companies, in the fund. Well-secured debentures and preference stock, where the ordinary stocks of the same company have paid for some years a regular dividend, are, however, satisfactory as a general rule. In addition to the objection which applies to ordinary shares, that the security for the capital is, or may be, relatively speculative, there is frequently a further drawback in the liability which attaches to a great many of such shares. Where this exists there is the risk not only of the depreciation of the shares, but a likelihood of a loss by reason of a call being made in respect of them. Bank shares are nearly all (the Bank of England Stock being a notable exception) subject to a large liability, and on this account cannot be regarded very favourably from this point of view. If the stocks have an official quotation on the London Stock Exchange, not only are their prices easily ascertainable

at any time, but full particulars of the Company are available in the Stock Exchange Year Book and Burdett's Stock Exchange Official Intelligence, and other usual books of reference. The class of Stock Exchange securities included as trustee investments is representative of the sort of security which one looks for in a trust fund. It is, however, of course, well within your knowledge that even what are called giltedged securities, that is to say, those which are, or should be, subject to a minimum of fluctuation, have in recent years shown a remarkable downward tendency. This decline in prices, the reason for which has been the subject of much discussion, but does not concern us here, is illustrated by the following instances, and has, I think, more than justified the most pessimistic views taken of the stocks some years ago:—

	Price	1900	1905	1912
Consols		100	891	75
India 3½%		$108\frac{3}{4}$	106	92
London & NW. 3% Debs.		105	98	81

The rate of interest on Consols was, of course, reduced in April, 1903, from $2\frac{3}{4}$ per cent. to $2\frac{1}{2}$ per cent., which accounts for some decline in the price. When such securities have shown such marked depreciation one naturally fights shy of dealing with a fund which includes stocks of a more speculative character.

It may not be out of place to mention here a particular class of gilt-edged security occasionally included in trust funds, namely, the "A" and "B" Annuities of the Indian Railways. Both these are terminable annuities, but the point to remember is that in the case of the "B" Annuities a certain portion of the annuity is deducted to form a sinking fund to replace the capital, while in the case of the "A" Annuities there is no such provision, and they constitute a depreciating security which, like leaseholds mentioned above, has little if any value in reversion.

In dealing with Stock Exchange securities, I may mention that it is usual for a lender upon, or purchaser of, a reversion where the trust fund includes this form of investment, to place what is called a "distringas" upon one or more of the stocks. The effect of this is that notice is given by the Government, Company, or other issuing body, to the persons who have placed the "distringas" on the stock of any proposed transfer. It does

not necessarily prevent such transfer, but a period of eight days is given during which any steps can, if necessary, be taken to restrain it. If at the expiry of this period of eight days no steps have been taken, the transfer will be proceeded with in the ordinary way. As I have already mentioned, the stocks stand registered in the names of the trustees, although they have, of course, only a fiduciary interest in them, and consequently any change in the trusteeship necessitates the transfer of the stock itself into the names of the new trustees. The advantage of this precaution, therefore, is that the lenders automatically become aware of any dealings with the stocks included in the fund, and in particular it brings to their notice any alteration in the trusteeship of the fund which they might not otherwise hear of. It is for this reason, among others, I mentioned earlier that it is desirable for a trust fund to include some Stock Exchange securities. The expense of this procedure is materially lessened by the fact that one "distringas" will cover all the stocks issued by the same Company, or inscribed at the same place, and as a number of gilt-edged stocks are inscribed at the Bank of England this is a great saving in the cost. A somewhat similar protection is obtained by means of a stop order in the case of funds standing in Court.

A policy of Life Assurance on the life of the life tenant is a not uncommon part of the fund. If this is paid up no question arises, but if not, enquiry should be made as to what provision exists for the payment of premiums. If the trustees are authorised to pay these out of income, and the income is adequate for this purpose, the policy will form a very satisfactory part of the fund, and in the case of a with-profit policy a security which is growing in value. Where the life interest is being dealt with, the right of the trustees to pay the premiums out of the income will constitute a deduction from the interest and will decrease its value. It is preferable for the policy to be world wide and free from any special conditions which might invalidate it. Property such as furniture or jewellery is of little value in a reversion, and in fact is seldom found, as such property is usually either left as specific legacies or earmarked to be sold and re-invested in interest-bearing securities.

It very often happens that either before or after the creation of the trust, advances have been made to beneficiaries either by the testator or by the trustees, when so authorised, these advances having to be paid as a first charge out of the shares of such beneficiaries when the reversion falls in. In such a case it is generally found that only the amount advanced has to be deducted without any deduction on account of interest, but this is a point which must be ascertained.

In dealing with such advances for the purpose of ascertaining the reversioner's share, the whole of these amounts, including any made to the reversioner himself, must be added to the fund, and will, with the rest of the fund, be subject to duties. Such advances can, however, only be considered a good asset when they are well within the shares which the respective beneficiaries will receive.

If an advance has been made to the reversioner in question, this must be deducted from his share with or without interest as the case may be. When, as is sometimes the case, a general statement is made that such advances exist, particular enquiry must be made as to whether any advance to the reversioner is included, and details of the other amounts should be ascertained to see if they are properly secured on the shares.

An item of cash is usually only temporary, and the investment in which the trustees ultimately propose to place the money must be stated.

VALUATION.

Having mentioned most of the principal items which are likely to appear among the investments, I will say a few words as to the valuation of these securities. I do not propose, however, to enumerate any of the formulæ or mathematical principles on which the valuations are made, as I should then be encroaching on the purely technical sides of the subject, which would be of little interest or service to you. I may say, however, that the value to be placed upon a reversion depends very much upon the particular circumstances of the case, and, in addition to the considerations to which I have already drawn your attention, the purpose for which the value is required is a feature. It is not purely a question of calculation, but rather of judgment and experience, and at one time, when there was less uniformity in dealing with the points which arise in such valuations, very divergent values were brought out by different valuers.

As a general rule I should not consider it any more advisable for an inexperienced person to value a reversion from a text book or fixed formulas than for a layman to prepare his own case for the law courts, although, doubtless, both have been done with some success.

In the case of an absolute reversion, the first thing is to place a reliable estimate on the sum which the reversioner's share will be worth in the market when it falls into possession, giving consideration, of course, to the points already mentioned. The value of this sum at the present time depends, then, mainly on two factors—the rate of interest to be realised on the investments and the rate of mortality of the life tenant. The rate of interest varies from time to time with the general value of money, but at the present time about $4\frac{1}{2}$ or 5 per cent. would be a fair rate, although I believe that many of the reversionary Companies expect to realise a higher rate than this.

As regards the rate of mortality, it is found, so far as the matter can be investigated, that the mortality rate experienced among life tenants is extremely light. As in the case of annuitants who you probably know to be generally longer lived than the average, it is likely due to the fact that they are largely composed of persons who have a fixed comfortable income, so that they are free from the anxieties and stress which brings down the grey hairs of Insurance men and others to an early grave. Their unusual longevity in both cases has been ascribed to a mere craving for getting the best of the Insurance Offices, but the authority for this is doubtful.

A very common assumption is that the value of a reversion is derived from the expectation of life of the life tenant, and I have myself heard a learned judge and two counsel arguing at some length a point in which the value of a sum receivable at a person's death was concerned, all of them basing their arguments on this fallacy. The result was more entertaining than instructive. Although this method would not, I suppose, in many cases give a very wide approximation, it is sufficiently inaccurate to render it useless for the purpose. In point of fact each successive year of age is separately treated, and the tables in use are calculated on this principle.

In the case of life interests, the general principle is that the income which can safely be relied upon, during the life of the life tenant, must be adequate to provide the interest on the

capital invested and the premium on the policy necessary to replace the capital. This applies equally to reversionary life interests, although you will recollect that in this case the capital outlay must include provision for premiums and interest until the life interest falls into possession.

MISCELLANEOUS POINTS.

I will conclude with one or two remarks on miscellaneous points which occasionally arise in the preliminary negotiations incidental to reversionary transactions. It often appears that an applicant who wishes to realise on his expectations makes it a stipulation that his relations, or some of them, or the trustees of the fund are not to be informed of the transaction. Where it is the trustees as such, or where such persons happen to be trustees, this is impossible, as it is imperative that notice be given to every trustee in order to protect the security. In the recent case of "In re Phillips Trust," 1903, this was illustrated, and it was shown that notice to some of the trustees only leaves the security in danger of being rendered bad in certain events.

Frequently the life interest in an estate or fund is limited to two or more persons as "tenants in common" or as "joint tenants," and the distinction is an important one. In neither case do any of the life tenants have a sole interest in any particular portion of the fund exclusively, but only shares, not necessarily equal, in the whole fund. There are several important legal incidents of joint tenancy, but the great point to remember is that where there is a joint tenancy the survivors of the joint tenants are entitled between them to the share or shares of those who predecease them; where, however, the tenancy is a tenancy-in-common, the survivors do not necessarily, or even probably, take the shares of those who have died before them. As an illustration of this point, suppose A and B to be joint tenants, then on the death of B, A becomes entitled to B's share as well as his own. If, however, they hold as "tenantsin-common," on the death of B his share may perhaps go to his children C and D, who between them take B's share and become tenants-in-common with A.

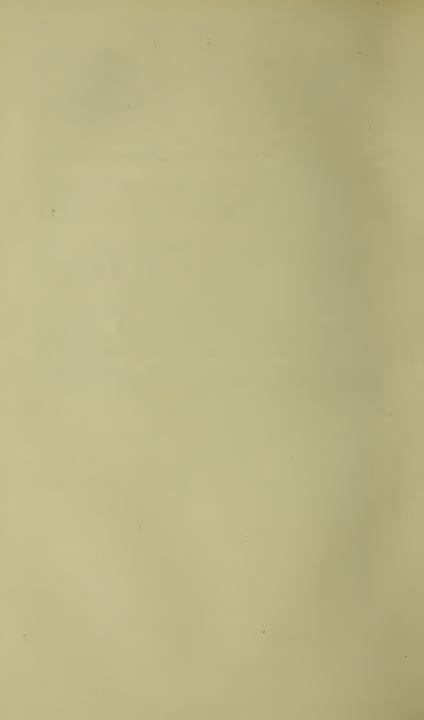
In this connection there is another point which often occurs.

On the death of certain beneficiaries before their share vests, there is a gift to their children per stirpes or per capita. In the former and more usual case the children of the deceased beneficiary take between them the share of such beneficiary; where, however, the gift is to the children per capita, such children share equally with the other beneficiaries, so that if there are two or more children the other beneficiaries' shares are correspondingly decreased.

You will have noticed that in almost all these transactions a policy has to be effected, and I will close my remarks by drawing your attention to the features of the class of business so introduced.

In the first place, the policies effected are usually for large amounts, in some cases running into many thousands; and, secondly, such business is not generally of the same competitive type as where the policy is the sole consideration.

I may add that where dealings take place in reversions to, or life interests in, large landed estates, the Fire Insurances of such estates are frequently carried with the transactions. These features, if not of great academical importance, are considerations which I feel will not be lost upon those of you to whom the acquisition of business is something more than a hobby.



CALICO PRINTING WORKS.

By Mr. F. W. E. BARKER (Alliance Assurance Co.).

A Paper read before the Insurance Institute of Manchester, 1914.

THERE is no need here to insist on the importance of calico printing works from a Fire Insurance point of view. The large number of these works, which are situate either in Lancashire or close to the borders of the county, and the record of fire losses therein are sufficient to invest the subject with interest for everyone here.

The paper I am about to read is an attempt to deal briefly with the subject in so far as the fire hazard is concerned, and bearing this point of view in mind, a description will be given of the various processes which cotton cloth undergoes in its progress through a calico printing works.

The subject is so extensive that it is impossible to deal with it exhaustively in the time at our disposal, but if those among my audience who have only had limited opportunities of studying the matter derive a clearer impression as to the nature of these works than they have hitherto been able to obtain the object of my paper will be fulfilled.

Calico printing is the impressing of a pattern in colour upon cotton cloth which enters the works for this purpose in the grey state precisely as it leaves the weaving factory.

In most cases the cloth requires to be prepared before the actual printing is done, and various methods are adopted with this end in view in accordance with the quality of the cloth and the pattern that is to be produced. The first process is usually the removal of loose or projecting fibres from the surface of the cloth. This is effected in part by singeing, and in this process, after the ends of the pieces have been stitched together so as to

form a continuous length, the cloth is passed rapidly over one or more fire-heated plates or over a number of gas jets. The plates, which are of cylindrical shape and are constructed of metal, are securely set in brick-work and maintained at a fierce red heat by flames from a furnace at one end of them. As the cloth passes over the plates it is kept in close contact with them, and travels at a speed of between 80 and 100 yards a minute.

The fuel usually employed is coal, but naphtha is in some cases made use of. This is conveyed into the furnace by means of an injector attached to a metal pipe which is supplied from a storage tank overhead.

In the gas singeing stove there are one or more rows of jets, over the flames from which, and in close contact therewith, the cloth passes rapidly.

Immediately after singeing the cloth is usually passed through a trough containing water or through a box filled with steam as a precaution against fire. In some works a pair of close-fitting india-rubber rollers is used for the same purpose.

The cloth is now ready for bleaching, during which process a variety of natural impurities contained in the cotton, together with substances acquired during the process of manufacture, are removed and a white appearance is obtained.

The treatment of cloth in the bleach-croft varies considerably in accordance with its quality and the nature of the design to be printed on it. Generally, however, it is run through warm water after singeing, and is then allowed to lie for a few hours. By this means starchy substances are partly decomposed and are thus rendered easier to remove in subsequent processes. The cloth is next passed through milk of lime, and is afterwards boiled under pressure in steam-heated kiers. In this way the size and oily materials are either removed or sufficiently decomposed to facilitate their removal hereafter. The cloth is next washed, and is then passed through a weak solution of acid in order to remove any traces of lime. It is then washed again and boiled for several hours in a solution containing soda ash, to which soap is sometimes added, and is afterwards washed once more.

With a view to shortening the process and effecting economy, one boiling in caustic is now substituted in some works for the two boilings in lime and soda ash.

There should now be nothing left in the cloth beyond natural

colouring material, and this is removed by the process familiarly known as chemicing, which constitutes the actual bleaching. In this process the cloth is run through a solution containing bleaching powder, otherwise known as chloride of lime, and is afterwards passed through dilute acid.

In the process of bleaching the chlorine contained in the powder being evolved by the acid combines with the hydrogen in the water, and oxygen being thus liberated enters into combination with the colouring material in the cotton, converting it into a colourless compound. After bleaching the cloth is thoroughly washed and is then dried on steam-heated cylinders.

The cloth should now be free from all impurities as well as from natural colouring material. It is necessary at this stage to remove any loose fibres which the singeing has allowed to remain on the surface, and this is done by shearing, which consists in passing the cloth over steel blades which are arranged spirally round an axis and revolve at a great speed against the face of the cloth, the fibres cut away being removed by revolving brushes.

In certain cases the cloth requires stretching, which is done either by steam heat or without heat on a long iron frame, along each side of which are clips or pins which grip the edges of the cloth as it travels along the frame.

If it is desired that the cloth shall have the appearance and feeling of silk, it is mercerized immediately before chemicing. This process consists in passing the cloth through a strong solution of caustic soda, after which it is washed while under tension and dried on steam-heated cylinders.

We have now to deal with the processes immediately connected with the printing and developing of the colour upon the cloth, and at this stage there is a considerable variety in the methods which may be adopted and also in the materials employed.

It will shortly be explained that materials other than colours are frequently printed upon the cloth, and the colouring materials themselves are often applied by other means. As, however, the actual printing is usually effected either by the cylinder printing machine or by hand blocks, it will be well to describe these appliances before proceeding further.

The body of the printing machine consists of a large metal drum, against the underside of which a number of copper

rollers are arranged to revolve. These rollers are in the form of hollow cylinders, and when in use each roller is securely attached to a spindle which runs through the centre of it from end to end and fits into bearings on the machine. This spindle is known as the mandrel.

Each roller is engraved with a portion of the pattern to be printed, a separate roller being provided for each colour or other material. A trough, known as the colour box, is fitted beneath each roller and is filled with material from the colour pans, which are brought into the machine shop for the purpose. A wooden roller covered with cloth or fitted with brushes revolves in the colour box, and being kept in close contact with the engraved copper roller is the means of conveying the material to the latter. The surplus material is scraped off the copper roller by means of steel blades working against it and known as doctors. These allow the material to remain only on such portions of the roller as are indented with the engraved pattern.

Two doctors are fitted to each roller, and one of these, which comes into contact with that portion of the roller which has just left the cloth, removes any lint which has become attached to the roller from the cloth in addition to surplus material. The metal drum forming the body of the machine is wrapped with several folds of lapping in order to form a more or less resilient surface by pressing against which the engraved rollers can force the material into the cloth.

In order to protect this there is placed over it a blanket which travels with the cloth and is in the form of an endless band of considerable length. This is composed of woollen or cotton cloth rendered partially waterproof. The waterproofing is often effected in the works by soap and metallic acetates, but in some cases a mixture containing spirit and shellac is used.

The cloth to be printed travels round the underside of the metal drum between the blanket last referred to and the engraved rollers. As the rollers, each holding a separate colour or other material, revolve against the cloth the pattern is produced. As many as eight or ten colours are frequently printed simultaneously on one machine.

The copper rollers are often engraved in the works. For this purpose an enlarged impression of the pattern is first produced on a zinc plate and a reduced copy of this is transferred to the roller by means of a machine known as a pentagraph. The roller is first covered with varnish, and after the pattern has been traced in the varnish by the diamond of the pentagraph the roller is immersed in nitric acid, which eats the pattern into the copper where the varnish has been removed.

Hand blocks are still used for printing certain patterns which cannot be produced on the machine, and lately their use has been revived. The blocks are pieces of wood about 3 inches thick and varying in length and width up to about 20 inches. They are fitted at the back with a handle, and the pattern is carved on the face of the block or is formed thereon by strips of metal, the outlines being filled in with felt. The cloth to be printed is wound round a roller at one end of a table covered with blankets and is exposed upon the table as required. The printing material is supplied from a pad contained in a box near the table and on to which the block requires to be dipped before each application to the cloth.

I have said there is a considerable variety in the methods adopted and also in the materials employed in producing the colour upon the cloth, and before describing the various methods or "styles" of printing it will be well to enumerate some of the materials made use of.

The principal colouring materials are derived from the distillates of coal tar. The light oil given off during distillation yields benzene, which is the simplest representative of a large class of substances known as aromatic compounds, and from which nearly all the artificial organic colouring materials are derived. Benzene itself is not used by the calico printer, but is the source from which are obtained aniline and toluidine, and it is from a mixture of these two substances that the large class of colouring materials known as the aniline dyes are manufactured.

In like manner naphthalene, which is derived from the middle oil of distillation, is the source from which the azo dyes are produced, while anthracene, which is the final product of distillation, is converted into the dye-stuff known as alizarin.

Though largely superseded by the coal-tar colours, the discovery of which effected a revolution in calico printing about 60 years ago, certain vegetable and mineral substances are still used to a considerable extent as colours.

Among vegetable substances may be mentioned logwood, redwoods, fustic, bark extract, Persian berries, cutch, and indigo, while among pigments of mineral origin are ultramarine, pigment yellows, which are lead chromates, and pigment green, which is hydrate of chrome. Lamp-black is occasionally used but only in small quantities.

Another important class of materials used are commonly known as mordants, and in dealing with these it is necessary to explain that there is only a limited number of dye-stuffs which cotton is able to attract and afterwards to retain against the influence of water and other separating agencies. In other words, the majority of dye-stuffs when taken up by cotton do not produce fast colours. It is therefore necessary in most cases to supply a substance which will unite both with the fibres of the cotton and with the dyestuffs so as to bind them firmly together. These substances are called mordants, a word derived from the Latin verb mordere, to bite, and their function may be popularly explained if we say that they enable the colours to bite the cloth.

It is not certain whether chemical action takes place between the fibres of the cotton and the mordants, but it would seem that the mordants are capable when in solution of being taken up and held by the cotton, and when the dye-stuffs are applied to the cotton thus impregnated the mordants enter into chemical combination with the dye-stuffs and form insoluble compounds or colour lakes.

In some cases the function of the mordant is confined to the fixation of the colouring materials in the cotton, but in most cases the mordant forms an essential constituent of the colour. Thus alizarin, which in itself is yellow, when used with an aluminium mordant produces a red or a pink, while with an iron mordant the resulting colour is violet, and with a chromium mordant chocolate is precipitated.

The most important mordants used in calico printing are the acetates of aluminium, iron, lead, and chromium, and the active agent in the operation of mordanting is in all these cases the metallic oxide contained in the compound.

It is, of course, essential that mordants should be soluble in water or in some other vehicle, for it is only in this way that they can be brought into intimate contact with the fibres of the cotton, and it is equally essential that the solvent should be

capable of being extracted without difficulty, so that the mordant may be left in the cotton in an insoluble condition. Metallic oxides are therefore used in combination with an acid which keeps them in solution or in such a condition that they are readily soluble. Acetic acid is generally used because it is easily volatilized, and therefore a comparatively slight rise in temperature is all that is necessary to dissolve the combination between it and the oxides, leaving the latter to perform their proper function of forming insoluble compounds with the colouring materials.

The manner in which this separation between the acid and the oxides is brought about will shortly be described.

Among other mordants so called are tannic acid and certain vegetable oil preparations. The latter are hardly mordants in the true sense of the term, but are largely used for preparing the cloth with a view to brightening the colours and assisting in the fixation of the real mordants.

The most important of these oil preparations is oleine, which is prepared by the action of sulphuric acid on either olive or castor oil, the resulting fatty and sulpho fatty acids, after the excess of sulphuric acid has been removed, being dissolved by the addition of caustic soda or ammonia. Oleine is often manufactured on the premises, and, as supplied to the printer, contains about 50 per cent. of fatty matter. It is applied to the cloth in diluted form, and when used as a prepare the oleine generally forms between 3 per cent. and 6 per cent. of the whole.

Both colouring materials and mordants usually require to be thickened before being applied to the cloth.

The materials made use of for this purpose include starches, flour, British gums, natural gums, caseine, and albumen. In addition to thickening, the two last-named also act as fixing agents, their efficiency in this respect depending on their property of coagulating under the influence of heat, in which condition they attach themselves to the cotton by embracing the fibres in a sort of network in which the colouring material is entangled.

With these two exceptions, however, the thickeners are added solely for the purpose of obtaining the degree of consistency necessary for the printing of the colours and mordants. and are washed out of the cloth during subsequent processes.

A small quantity of turpentine or paraffin is added to these materials sometimes to prevent frothing in the colour box. Methylated spirits are also used in small quantities as a solvent for certain colours.

The foregoing is not a complete list of the materials used in calico printing, but it will lead to a better understanding of our subject if other materials are dealt with in the later stages of this paper.

It will now be well to consider the various methods or "styles," as they are called, of producing the pattern upon the cloth.

Of these there is a considerable number, but for our purpose they may be classified under a few heads.

In the steam style the colours with other materials and with mordants where these are required are mixed together before being printed on the cloth and are afterwards fixed or developed by the action of steam. The cloth is in many cases prepared by being passed through an oleine solution, and immediately after being printed it is dried on steam chests and cylinders which are always in close proximity to the printing machine.

The chests are metal boxes filled with steam, and the cloth passes within a few inches of these but usually does not touch them. By means of the chests the colours are partially dried, which is essential in many cases in order to prevent them adhering to the steam-heated cylinders over which the cloth is next conveyed with the object of completely drying the colours. As the cloth passes over the steam chests and cylinders a considerable proportion of the acid contained in the printing colours in combination with the mordants is expelled and the colours thus become partially fixed in the fibres of the cotton. In order to further this process the cloth is next passed through the ager or the continuous steamer, or is steamed in the cottage steamer.

The ager is a large box constructed of iron plates and fitted with rollers at top and bottom. At the top are chests filled with steam to prevent condensation, and at the bottom are perforated metal pipes and radiators, through which live steam is blown into the chamber.

The continuous steamer is a much larger chamber than the ager, being usually about 50 feet high and about 60 feet long. It is constructed of brick and iron, and the internal arrangements are similar to those in the ager.

In passing through either of these chambers the cloth is arranged so as to hang practically from top to bottom in a series of loops extending from one end to the other as it travels continuously through.

In the case of the continuous steamer the cloth usually travels at such a speed that it remains enveloped in steam for about an hour.

The cottage steamer is an iron chamber somewhat similar in shape to an ordinary horizontal boiler. The cloth is arranged on iron carriages which are wheeled into the steamer, the interior of which is then filled with steam at a pressure which can be regulated as desired.

The cloth is occasionally hung in the ageing room for several hours or even a few days, a large number of pieces being suspended in festoons reaching practically from top to bottom of a lofty room in which the temperature is usually maintained at about 100 degrees Fahrenheit with some degree of moisture. This method of ageing is, however, much less frequently employed than in former years.

The fixation of the colouring materials in the fibres of the cotton, which takes place to a considerable extent during these processes, is accomplished through the softening of the thickening materials used with the colours and mordants, by which means the latter are brought into intimate contact with the fibres of the cotton; the acid remaining in the mordant is at the same time expelled, and the remaining constituents of the mordant form insoluble compounds with the colours in the fibres of the cotton.

After steaming or ageing by either of the methods described the cloth is soaped and washed, and is afterwards dried on steam-heated cylinders before being finished. When tannic acid is used as a mordant the cloth before soaping is passed through a fixing solution containing tartar emetic and other ingredients. The tannic acid unites with the tartar emetic to form tannate of antimony, an insoluble compound, and in this manner the fixation of the colouring materials in the fibres of the cotton is completed.

Either before or after steaming the cloth in some cases passes through a bath of ammonia vapour in order to neutralise any acid which may not be expelled in the steamer, and which would tender the cloth if allowed to remain there. Another important method of printing is known as the dyed or madder style. In this method only the mordants, together with thickening materials, are printed on the cloth, the colouring materials being afterwards supplied in the dye beck.

After the cloth has been printed it is dried on the steam chests and cylinders already referred to, and is afterwards steamed in the cottage steamer or is aged.

Sometimes the ageing is effected by allowing the cloth to lie in bundles for one or two days.

The mordants most commonly employed in this style are the salts of aluminium and iron.

When iron mordants are used the ferrous salt is oxidized during ageing into the ferric state, and exists on the cloth either as hydroxide, or as an insoluble basic ferric acetate, or as a combination of the two. In these cases the cloth is often prepared with a solution containing a small quantity of chlorate of soda in order to assist oxidation.

After the cloth has been aged or steamed it is passed through one or more solutions containing cowdung with other ingredients, such as phosphate of soda, arseniate, or bi-arseniate of soda, and chalk. Dunging, as this process is named, results in the precipitation of such mordants as have not yet been rendered insoluble, and in this way the fixation of that portion of the mordant which is in contact with the fibres of the cotton is completed, the remainder of the now insoluble mordant being washed away with other surplus material.

After dunging and washing the cloth passes into the dye beck, where the actual colouring material is applied, and is afterwards soaped and dried on steam-heated cylinders before being finished. In this process of washing after dyeing the colouring material is removed from such portions of the cloth as have not been printed with the mordant.

In the resist style the cloth is printed with a substance which prevents the formation of a colour lake or the fixation of the colours on those parts to which the resist has been applied.

Various substances are used as resists in accordance with the nature of the colouring materials and mordants which are afterwards to be applied to the cloth. Some of these offer merely a mechanical resistance, and perform their office by preventing the colouring materials from coming into contact with the fibres of the cotton, flour, china clay, metallic salts, gum, stearine,

paraffin wax, resin, and precipitated sulphur being employed in this way.

Certain acids or their salts, however, when used as resists, react with the mordants so as to neutralise their faculty of fixing the colours.

After being printed with the resist, which is usually coloured or "sightened," as it is called, to enable the printer to see that it is properly applied, the cloth is run through the dye beck and the resist is afterwards washed out in soap and water or is dissolved in the steamer.

In the discharge style the cloth is first dyed and is then printed with a substance which, after undergoing further treatment, discharges the colour from those portions of the cloth on which it is printed, leaving either a white ground or one differing in colour from the remainder of the cloth. Various organic acids, such as citric, tartaric, oxalic, and formic acids, are made use of, and zinc dust, caustic alkalis, and the chlorates of potash and soda with ferrocyanide or ferricyanide of potassium are also used in discharge mixtures.

Cloth dyed either with indigo or Turkey-red is treated very generally with discharges, the first-named process being met with in many works. The cloth in either case is usually dyed by the printer, and in the case of both colours there are somewhat exceptional features.

Indigo is insoluble in liquids which can be employed by the dyer, and in this condition is, of course, useless. If, however, it is reduced by the abstraction of oxygen, the resulting product, known as indigo white, is soluble in an alkaline solution. The reduction is effected in the vat through the medium of a substance capable of yielding hydrogen or of directly absorbing oxygen, and the cloth is then run through the indigo white as often as required, and on being afterwards exposed to the atmosphere the indigo white absorbs oxygen and is thus reconverted into indigo blue, which remains in the fibres of the cotton in an insoluble condition.

The indigo blue is discharged where required by printing a thickened chromate on the dyed cloth and afterwards passing the cloth through a solution containing sulphuric acid and a little oxalic acid. This liberates chromic acid which attacks the indigo, converting it by oxidation into a substance known as isatin, which, being soluble in water, is readily washed out.

If it is desired that a colour be left where the indigo is removed, the necessary colouring material with albumen is added to the discharge paste.

Indigo may also be discharged by printing the dyed cloth with a thickened paste containing chlorate of soda or chlorate of potash with ferrocyanide or ferricyanide of potassium, after which the cloth is passed through the ager.

Among other modern methods indigo is discharged by printing the dyed cloth with hydrosulphites, after which the cloth is aged: this reduces the indigo to indigo white, which may be removed by caustic soda.

In some works the dyed cloth is printed with a mixture of hydrosulphites and other substances added to prevent reoxidation to indigo blue, in which cases the discharge may be completed by washing.

Various methods have been adopted from time to time in the dyeing of Turkey-reds. In the older processes the cloth was prepared by being padded several times with an emulsion containing as much as 50 per cent. of olive oil, and was hung in fire-heated stoves after each application.

In the best known of modern processes the prepare contains a much smaller proportion of oil, and there is no stoving by fire heat. In this style, after bleaching, the cloth is passed through a solution containing about 10 per cent. of olive or sulphated castor oil, or some other vegetable oil, and is dried on steamheated cylinders. The next process is liquoring, which consists in padding the cloth with a solution containing sodium carbonate, after which the cloth is hung in the ageing room, which is maintained at a temperature of about 73 degrees Fahrenheit.

The quantity of oil which is permanently fixed in the fibres of the cotton depends on the number of these liquoring operations, about 10 per cent. of oil being left in the fibres of good Turkey-reds. The cloth is now passed once again through a solution containing sodium carbonate, by which means any oil which has not become attached to the fibres is liberated. After washing and drying an aluminium mordant is applied to the cloth, which is then dyed with alizarin and washed. It is next passed through the steamer, and after soaping is again washed and dried.

During ageing and steaming the oil is decomposed and oxidized and acts as a fixing agent for the mordant besides entering into the composition of the red lake, which is brightened considerably through its action.

The discharge paste, containing citric, tartaric, or oxalic acid, is next printed on the cloth, which is afterwards passed through a solution containing bleaching powder. When a coloured impression is required in the place of the discharged Turkey-red, the necessary colouring material is added to the discharge paste.

An important group of colours which are developed directly upon the cloth and may be regarded as a separate style in printing are the so-called azo or ice colours.

Paranitraniline red is the most important of these, and is greatly in vogue at the present time as a substitute for Turkey-red, being a good imitation of that colour, cheaper to produce, and fairly fast. Another well-known colour in this style is alpha naphthylamine claret.

The successful production of these colours depends upon the fact that if a solution of a diazotized amine is brought into contact with a solution of alpha or beta naphthol an insoluble colour is precipitated.

An amine is an aromatic compound containing the NH_2 or so-called amido group, and a diazo compound is one containing two nitrogen atoms linked to one another, and is produced usually on the premises by the action of nitrous acid on the hydrochloride or suplhate solution of these amines.

In this style the cloth is first impregnated with an alkaline solution of alpha or beta naphthol, and after being dried on steam-heated cylinders is printed or padded with a solution of the diazotized amine. The reaction taking place between the printing mixture and the prepare results in the instantaneous precipitation of the insoluble colouring material on the cloth, and the bye-products formed at the same time being soluble in water are removed with the thickening materials in the subsequent washing.

The chemical reactions occurring in this style are of a somewhat complicated nature, but it may be well to state that oxidation plays only a subordinate part in them.

We have now considered the principal styles of printing, and only the finishing processes remain to be dealt with. These are of great importance from the printer's point of view, but as far as our purpose is concerned they may be dismissed very briefly. It often happens that the colours produced on the cloth are not of the precise shade required, and in these cases further treatment is necessary. The colours may require to be brightened, and oleine and certain kinds of soap are used freely for this purpose. In other cases those portions of the cloth which are intended to be white are not clear or have become stained, and in these cases chemicing is resorted to; sometimes the cloth requires to be blued, and in all these cases, and after soaping and washing, the cloth must be dried again. When the colours are finally approved the cloth is stiffened with starch, china clay being added in some cases to supply weight and substance—in a process known as back filling—and the cloth is dried again on steam-heated cylinders.

Some goods undergo the process known as stentering, which consists in stretching and drying on a long iron frame along each side of which are numerous clips or pins which grip the edges of the cloth, and are arranged to travel continuously from one end of the frame to the other. The object of this is to restore the width of the cloth, which has been diminished in proportion as its length has been increased during the operations described. As the cloth passes over the stentering frame it is dried usually by means of hot air supplied from a number of tubes connected to a steam-heated chamber. The stentering frame is generally enclosed by timber and glass partitions, and the compartment thus formed is maintained at a higher temperature than any other part of the works.

Among other finishing processes are calendering and schreinering, both of which consist in subjecting the cloth to pressure between a steel roller heated by steam or gas, and a roller of compressed cotton or paper. In the case of schreinering the steel roller is engraved with fine diagonal lines, and more pressure is employed than in calendering. By either of these processes a high gloss or finish is imparted to the surface of the cloth.

It may be interesting to note here that in some works experiments have been made recently with the object of producing a schreiner finish which will not suffer injury through contact with water. The essential principle of one of these processes consists in the coating of the cloth with a solution containing celluloid, which is sprayed on the cloth, after which schreinering is completed in the manner already described. I

have not seen this process being carried on, and, so far as I know, it is still in the experimental stages.

Flannelette raising is a process carried on in many works with the object of producing on the surface of the cloth a nap having an appearance and feeling similar to that of flannel. The raising machine consists of a large roller or a number of smaller rollers arranged so as to revolve round a central drum; each roller is covered with steel teeth, and as the cloth travels over the rollers the teeth come into contact with the surface of the cloth and so effect the necessary raising.

The process known as crimping, which consists in producing a crèpon effect on portions of the cloth, is carried on in some works. In this process caustic soda is printed upon the cloth by means of copper rollers, or the same effect is produced by printing gum on the cloth and afterwards running the cloth through caustic soda.

Our survey of the various processes involved in calico printing may now be regarded as complete, and it will be well to turn our attention more particularly to the fire hazards involved.

In connection with this portion of our subject the materials made use of by the printer are naturally an important consideration.

The coal-tar colours are derivatives of hydrocarbons, and most of them are capable of combustion. At the same time, as supplied to the printer they are not highly inflammable substances, nor with certain exceptions do they appear to be liable to spontaneous combustion or to increase materially the inflammability of the printed or padded cloth.

The azo or ice colours which have been referred to are usually prepared in the works in a wet condition. Ice is added on account of the fact that if the temperature rises beyond a certain degree decomposition will take place and the colour will be spoiled, but it is well to explain that no risk of fire is involved by this rise of temperature.

Some of these colours, however, may be stored in the dry condition, and are liable in this state to decomposition and possibly to spontaneous combustion.

Among mineral colours pigment yellows may be mentioned as increasing to some extent the inflammability of the printed or padded cloth. Chrome yellows give off oxygen at high temperatures and are converted into chromic oxide and a basic lead chromate, the latter being readily oxidized when heated with organic compounds.

It has already been stated that methylated spirits, turpentine, and paraffin are made use of in the preparing of some colours. These are usually added in small quantities, but when metallic colours are printed solvents of a highly inflammable nature, such as spirit varnish and naphtha, are employed in much larger quantities, and the printing of these colours is rightly regarded as involving a somewhat exceptional hazard.

Various oils and soaps are used for padding cloth after printing, and among these may be mentioned cotton-seed oil, palm oil, olive oil, cocoa-nut oil, tallow and soaps derived from these. Some of these render the printed cloth liable to spontaneous combustion after it has been dried on the cylinders, and cotton-seed oil and soaps prepared therefrom may be regarded as among the most dangerous in this respect. When this oil is relatively cheap it is freely made use of for this purpose.

There is always danger of spontaneous combustion taking place in the cloth where Turkey-reds are produced owing to the padding of the cloth with oil as already described, and it should be noted that where alizarin reds are produced either olive oil or oleine is freely added to the colouring materials in addition to the oleine used in preparing the cloth, and this practice also involves a risk of spontaneous combustion.

The danger in either of these two cases is less than that involved in the old emulsion process of producing Turkeyreds, but the nature of the oils used in padding the cloth or preparing the colours is an important factor in determining the risk.

In a number of works it will be found that oleine is manufactured on the premises, and the use of an inferior quality of oil for this purpose increases the risk of spontaneous combustion taking place in the padded cloth.

A process which is naturally regarded with some degree of apprehension is the production either by padding or printing of aniline black. This colour is produced directly upon the fibre, and various means of producing it have been devised, the essential feature of all being the oxidation of an aniline salt by

means of chlorate of soda or chlorate of potash, the oxygen being conveyed from either of these to the aniline salt through the medium of a metallic salt. The salts of vanadium or copper are sometimes used as the carrying agent, but in the method most commonly adopted potassium ferrocyanide serves as the carrying agent, and is used in conjunction with aniline hydrochloride and chlorate of soda or chlorate of potash.

After printing or padding, as the case may be, the cloth is dried either by steam or hot air, which causes the colour to appear as a light green, and is then passed through the ager, where oxidation is accelerated and the colour is fully developed. A passage through a bath containing bichromate of potash completes the oxidation, and the cloth is immediately washed and dried.

It is obvious that if oxidation takes place too rapidly or is allowed to proceed unchecked fire may result, and this danger occurs after the colour has been partially developed and before the cloth is finally washed and dried.

Here, however, the printer's commercial instinct is a valuable safeguard, for the possibility of loss through tendering of the cloth, which may, of course, take place without fire occurring, is sufficiently well understood to cause great care to be exercised, and it will generally be found that cloth is passed with the least possible delay through all the successive stages involved in the production of aniline black.

At the same time it is advisable that the plant concerned in these processes should be arranged so as to facilitate this being done, and not distributed in rooms separated from one another by intervening rooms crowded with stock.

When cloth is merely printed or dyed this is a comparatively simple matter, but when a white or coloured pattern is produced on a background of aniline black it is more difficult to arrange for this being done.

It is impossible to discharge aniline black when the colour is fully developed, and a resist is therefore printed on the cloth either while it is still in the white condition or after it has been padded and dried. In the latter case the colour is, of course, partially developed, and when the resist has been printed the cloth is dried again, and is next conveyed to the ager after passing through which oxidation is completed, and the cloth is washed and dried as already described.

During these successive operations the cloth is almost

necessarily conveyed from one room to another several times while oxidation is proceeding.

As already stated, the chlorates of potash and soda are used in combination with potassium ferrocyanide or potassium ferricyanide as discharges of indigo, and other colours are also discharged by the use of the same materials. In these cases the discharge is effected through oxidation, and there is always a somewhat exceptional risk of fire. Chromates have also been referred to as effecting discharges of indigo, and the action in this case is likewise oxidation through the chromic acid set free.

Another process attended with risk of fire through oxidation is the direct printing of indigo by Schlieper and Baum's method. The cloth is in this case prepared with a solution of glucose, and is afterwards printed with a mixture containing finely ground indigo paste and caustic soda. After being printed and dried it is passed through the steamer, by which means the indigo is reduced to indigo white through the action of the glucose and caustic soda. It is next hung in the ageing room, where the indigo white is reconverted to indigo blue through oxidation.

Among other materials used in addition to those already referred to in various parts of this paper are sodium peroxide, which is occasionally employed as a bleaching agent, chlorate of barium used in the manufacture of aluminium chlorate for discharges, potassium permanganate, nitrates, and various acids. Naphtha is made use of in small quantities in most works for removing stains from cloth, and in certain rare instances carbon disulphide is used for the production of special effects. The use of the material last named is exceptional, and its extremely hazardous nature is too well known to need emphasis.

It is important to bear in mind that, apart from the hazard involved in their use, the storage of spirits and other readily inflammable materials and also of substances which readily give up oxygen is a source of considerable danger if reasonable precautions are not observed.

It need hardly be said that all these materials should be stored in a building detached from the main body of the works, and as far away as possible, and in any case the chlorates of potash and soda, sodium peroxide, and all other substances which readily give up oxygen, and are therefore energetic supporters of combustion, should be kept where they are not

likely to come into contact with organic or other substances which are readily combustible. If this precaution is neglected, an apparently innocent cause such as friction or concussion, or heat without the application of flame, may bring about violent combustion, or a drop of sulphuric acid will be equally effective. With potassium ferrocyanide the chlorates have been known to ignite when carelessly handled. Zinc dust and sulphur, which, as already stated, are used for discharge and resist purposes, are liable to combustion after mixing with the chlorates, and nitric acid in conjunction with almost any organic substance is a violent oxidizing agent.

In dealing with the subject of hazardous materials and processes it should be borne in mind that experiments are likely to be made in all enterprising works with the object, in most cases, of producing some novel and attractive effect upon the cloth or of lowering the cost of existing methods, and it can hardly be expected that full particulars of either the materials used or the methods of applying them will be voluntarily disclosed, or that the possibility of an increase in the fire hazard will be taken into account quite as seriously as Insurance Companies would wish.

Among the more ordinary processes involving hazard it is natural to include singeing, although, as a matter of fact, few serious fires appear to have originated therefrom. The wet condition of the cloth in the processes immediately following is naturally a safeguard. Moreover, the singe-house is seldom left unattended, and the risk is so apparent that precautions are usually adopted. The passing of the cloth through water or steam immediately after singeing is an effective safeguard.

Flannelette raising is not likely to occasion frequent fires, but a serious hazard is involved by the cotton "fly" given off from the raising machine. This forms a deposit of highly inflammable material if allowed to remain in the room, and will, of course, facilitate the rapid spread of fire. Many raising machines are now fitted with a system of exhaust by means of which the "fly" is drawn directly from the machine and deposited in a suitable receptacle, and where this is done the hazard is diminished materially.

In considering the record of fires in this class of works it is rather the magnitude of individual losses than their frequent occurrence that calls for our attention, and there are many features in the majority of works which may be expected to facilitate the spread of fire.

Until recently free and open communication between almost all buildings has prevailed, and in most buildings where printed cloth is handled there is a great deal of timber lining to walls and roofs and timber partitioning round drying cylinders, the latter, in many cases, forming a hood over the cylinders.

Blankets are hung freely round drying cylinders, and, in many cases, are suspended to roofs. These are frequently worn-out printers' blankets, and large pieces will be found in some works hanging loosely from the roofs and imperfectly secured.

There is always a great amount of drying throughout the works, and the temperature of many rooms being thus abnormally high, the timber employed in construction of floors, staircases, linings, and partitions becomes almost as inflammable as tinder.

When drying chests and cylinders are placed in a room directly over the printing machines there are numerous openings in the floors to enable the cloth to pass through, and a fire occurring in one of these rooms can hardly fail to spread very rapidly.

In finishing rooms large quantities of printed goods are generally found in a more or less heated condition. The risk of spontaneous combustion has already been referred to, and it is significant that many of the more serious fires which have occurred in these works have originated in buildings where printed goods were handled or stored in the dry condition.

In some important features relating to fire hazard improvements have been effected in many works during the last few years.

Fireproof doors are now freely erected, and it can hardly be doubted that, in many cases, these are likely to prove effective in restricting an outbreak of fire, although it may be feared that in some cases the efficiency of the doors is discounted by openings in the walls for cloth to pass through, and by unprotected windows in opposing buildings.

Fire-resisting methods of construction are now adopted to a much greater extent than in the past, and partitions of incombustible material have been erected in some works where timber was formerly employed. These attempts at fireproofing are, of course, neutralised to some extent by openings in floors, but the materials employed will not furnish so effective an aid to combustion as the desiccated timber of the old-fashioned floors and partitions, and the movement should therefore be encouraged.

The substitution of incandescent electric lamps for gas is another change that should be welcomed, especially with regard to the movable lights in close proximity to printing machines.

In order to search for minute defects on the printed pattern these lights require to be held close to the cloth at fairly frequent intervals, and the danger attending this practice where gas is used is obvious. Copper rollers are sometimes repaired while in position on the machine, and I have seen one man effecting these repairs while another man held the gas light close to the roller and within an inch or two of the cloth: as the attention of both of these men appeared to be concentrated on the roller, it seemed merely a matter of good luck that the cloth was not set on fire.

The comparative disuse within recent years of hanging-rooms for ageing has already been referred to, and may be regarded as a diminution of the fire hazard.

A matter to which attention is now being given is the storage of copper rollers. It is important that these should be kept outside the range of the principal fire hazard, for, although they occasion no risk in themselves, they may be seriously damaged in the event of a fire, and in view of their value it is unfortunate if they are needlessly exposed to risk. In some works they are kept in the centre of a block of storied buildings used for more or less hazardous processes or heavily stocked with cloth. In other cases they will be found in a shed used solely for the purpose and communicating with other buildings by means only of fireproof doors. This last arrangement is often quite convenient to the printer, and may occasion a considerable diminution in the amount of loss through fire.

In respect of fire-extinguishing appliances, these works are now better equipped than at any former time. There is a plentiful supply of water at almost all works, but in the past there has often been no effective means of utilising this. Steam fire pumps are now generally provided, and automatic sprinklers have lately been introduced into a number of the larger works. It is too early yet to say what the effect of the appliances last mentioned is likely to be, but there seems no reason to doubt that they will minimise losses considerably.



THE WORKMEN'S COMPENSATION ACT, 1906: ITS AMENDMENT AND RELATION TO NATIONAL INSURANCE.

By T. F. LISTER, Royal, Liverpool.

A Paper read before the Insurance Institute of Liverpool, 13th January, 1915.

THE invitation to address a meeting of the Institute found me confronted with a problem which was none the easier of solution because it was an old problem. The difficulty was the choice of a subject. I naturally confined my thoughts to the field of Insurance comprised within the comprehensive title of "Accident," and it would perhaps not be out of place to outline the reason for my selection.

In the first place, I considered the subject, "Workmen's Compensation Act, 1906; Its Amendment and Relation to National Insurance," would not be inopportune, inasmuch as on 20th May of last year it was resolved, after debate in the House of Commons, that "a committee should be appointed to consider and report upon the anomalies which have been created under the administration of the Workmen's Compensation Act, 1906." It is true that the course of events has determined that all purely social questions shall be deferred to an, at present, indeterminate future, but it is unlikely that the enquiry will be delayed any longer than is necessary, for the reason that matters relating to Workmen's Compensation are now an integral part of the ordinary business life of the community and free from any acute controversy. Moreover, the consideration of Workmen's Compensation problems as they present themselves, together with amendments actually proposed or desirable, enables us to pursue lines of thought which are away from the beaten track of recognised text-books.

I am not going to devote any of your time to the history and

growth of Employers' Liability or Workmen's Compensation, nor do I propose to deal, except incidentally, with the experience in connection with the Workmen's Compensation Act, 1897. That part of the question has been fully exhausted. We have now had practically eight years' experience of the Workmen's Compensation Act, 1906, and on that experience one or two comments may be made by way of a preface.

An idea of the scope of the Act can be gathered from a recent return dealing with statistics of compensation and proceedings during the year 1913. (Home Office Cd. 7669.) Under the Seven Groups of Industries—Mines, Quarries, Railways, Factories, Harbour and Docks, Constructional, and Shipping—the Act applies to some seven and a half million employees, of whom five and a quarter millions come under the heading of Factories. During the course of 1913 compensation was paid in connection with 3748 cases of death, and 476,920 cases of disablement. This represented total compensation amounting to £3,361,000, and, with the cost of management, legal and medical expenses, it is estimated by the Home Office that the total charge borne by the seven groups of industries could not have been less than £5,000,000.

In this connection it should be remembered that outside these industries the Workmen's Compensation Act, 1906, applies to almost every person working under a contract of service, and the total number of employees who are entitled to benefit under the Workmen's Compensation Act, 1906, is something over 15 millions. Contrary to a common but not well-informed impression, it may be observed that the total number of claims within the cognisance of the Courts was 5701—a comparatively small percentage in relation to the number of persons affected. Of these 5701 actions not fewer than 4302, or 77 per cent., resulted in a decision in favour of the workman.

Nothing has been more striking than the decline in claims under the Employers' Liability Act of 1880, and I think we may take it this is not entirely due to a greater exercise of care on the part of employers generally, but is attributable to the length of time which must, on account of the slowness of the legal machinery, necessarily elapse before an employee can obtain any damages. The reduction in contested cases—from 604 in 1907 to 171 in 1913—is a fair indication of the tendency to prefer the great certainty of the Workmen's Compensation Act, 1906.

When dealing with the scope and application of the Workmen's Compensation Act, 1906, we naturally concern ourselves with the experience of British Insurance Companies, and one or two figures may prove interesting. In the years 1908-1913 inclusive, British Tariff Companies had an aggregate premium income of £13,414,000; for that period the net profit on the earned premiums was only equivalent to 3.88 per cent. When I say that included in these figures is a premium income of £2,711,000 obtained in 1913, on which a profit of 15.45 per cent. was earned, it will at once be clearly seen what were the conditions which had obtained in the earlier years of the Workmen's Compensation Act of 1906.

The Non-Tariff Companies have not yet reached a position from which any cumulative satisfaction can be derived, but, of course, these Companies vary so much in their methods and underwriting ability that it is not quite so easy to generalise in their cases. Coming to figures, however, we find that on a premium income of £4,400,000 obtained by Non-Tariff Companies in the years 1908-1913, there remains on the total working a deficiency equivalent to 6.70 per cent.

If there had been included in this review the experience of the Workmen's Compensation Act, 1897, I should have called attention to the well-known fact that under that Act it was found even more difficult to measure the liability, and it may be fairly said that if to-day, after an accumulated experience of 18 years, Insurance Companies are able to estimate with greater precision the burdens imposed on industry by statute, that constitutes a prima facie ground for opposition to alterations of a capricious character, for a high general level of stability is the chief essential to the proper working of the Workmen's Compensation Act, 1906.

Before passing to the consideration of specific amendments, we may with profit review Workmen's Compensation as it exists outside our own country. I meant to say something about Workmen's Compensation and National Insurance in a certain foreign country, but I think you will share my disinclination to do so, and I will let that pass, devoting myself to the Workmen's Compensation law as expressed in the various statutes in our Colonies and in the United States of America. Most of these laws have come into operation since the passing of our latest Workmen's Compensation Act in 1906, and many

have even a verbal similarity to our own Act, but we can presume that where they differ they do so either on account of local circumstances or because their framers thought they could improve upon the measure as it operates in this country.

For the sake of convenience and for no other reason, we will consider first the United States. Of course, as most of you are aware, each State has its own laws. These naturally contain features which are more or less common, but there is also considerable divergence at times. The divergence is even in the application of the various laws, and whilst we find an Act operating in one State referring to the employments covered as

> "public and private in certain enumerated hazardous "occupations if carried on by an employer for pecuniary gain and excepting farm labourers and

"domestic servants" (New-York),

other States' laws relate to

" especially dangerous occupations wherein five or more "workmen are employed "(Kansas);

and, in fact, the immunity from statutory liability where there are no more than five persons employed is a feature of the law in more than one State. When we come to the requirements precedent to liability we find the familiar

"arising out of and in the course of"

contained in a large number of the laws, but there are defences enumerated which have not been included in terms in our own Workmen's Compensation Act, 1906.

In New-York State

"serious and wilful misconduct"

is an absolute bar to compensation whatever the nature of the injury, and among the defences we may notice

"intoxication" (New Hampshire, etc.),

"intent to injure self or another" (New-York),

"wilful negligence" (Nebraska),
deliberate failure to use the device or guard against "accident provided by the employer" (Louisiana).

I presume this latter defence gives practical effect to the opinion of a prominent American, who declared that an accident prevented is a benediction and an injury compensated is an apology. In the Maryland State, injuries covered are

accidental personal injuries arising out of and in the course of employment, and such diseases or infection as may naturally and inevitably result therefrom, unless self-inflicted or due to wilful misconduct or intoxication.

There is nothing of special interest in the provisions of the United States laws dealing with due notice of accident, but it may be noted that generally compensation only becomes payable after the expiration of a fortnight. Compensation is based on the average weekly wages, which are ascertained by taking 300 times the average daily wage (New-York), or taking the monthly wage as a daily wage multiplied by 26 (Washington).

The benefits provided in certain instances are as high as $66\frac{2}{3}$ per cent. of the average wage (New-York, etc.), although in most States the disablement benefit is at the rate of 50 per cent. of the average weekly earnings. The maximum weekly allowance is, as we might expect, invariably higher than the maximum of £1 per week provided by our own Act, and there is usually also a minimum compensation, which varies from \$5 or full wages (New-York and New Jersey) to \$4 (Massachusetts) and \$3 (Louisiana).

This apparent provision of high compensation is frequently somewhat discounted by the operation of a stipulation to the effect that compensation is not to exceed either a certain aggregate, or ceases to continue beyond a maximum period which varies from six years (Maryland) to 500 weeks (Michigan), although, of course, there are States which provide for the benefits to continue for life if incapacity is permanent (New-York).

The benefits in the Washington State during total disablement vary in relation to the number of dependants which an employee may have, and this, of course, has led to discrimination in employees, which has recently been the subject of criticism in a section of the American Press. Partial incapacity is generally dealt with by granting 50 per cent. of the impairment of earning capacity, while in some cases there is a special defined benefit for the loss of certain members, such as hand, arm, foot, leg, or eye (New-York). In fatal cases we find that a lump sum may be payable in cases of total dependency (New Hampshire), or that an employer may be required to pay reasonable funeral expenses—maximum \$100—

together with a pension of 30 per cent. of wages to widow during widowhood (two years' benefit to widow on re-marriage) plus 10 per cent. additional for each child (New-York). There is originality and some genius in the provision of the Connecticut State, which requires \$750 to be paid to the State Treasury for the general expenses fund where an employee is killed and leaves no dependants. Generally the American laws grant medical and surgical aid, including crutches and apparatus, for a number of days following the accident, such as 60 days (New-York State).

The practice in regard to the protection which an employer may obtain by Insurance varies considerably in the different States. Some States have taken the field with an Insurance Department of their own, which monopolises all the Insurance business under the Workmen's Compensation Act in their own State by an assessment on employers, who are required to contribute to the "State Accident Fund." There is at least one instance of the levy having to be shared by the employer and employee.

In other States, insurance in some authorised Company, Association, or Organisation is compulsory, with the alternative of carrying own risk upon proof of responsibility satisfactory to a Commissioner of the Insurance Department. A very frequent stipulation is that the policy must provide that notice to the employer shall be notice to the Insurance Company.

When we come to deal with the Compensation laws in our Colonies, we find that a knowledge of our own Act and a review of the provisions contained in the United States laws includes most of the points of interest enacted by the Colonial statutes. I hope, however, that I have made it quite clear that the sequence in which we are reviewing the Workmen's Compensation laws outside the United Kingdom is one of convenience, and it is not necessarily to be inferred that the Colonial measures are the most recent to come into operation. At the same time, it must be remembered that none of the Colonial Acts have been on the statute book for any length of time. Under the "Act respecting Labour Accidents" (Province of Quebec) which deals with specified employments, the application (Clause 1) is to "accident happening by reason of or in the "course of their work." The word "or" is, of course, important. Section 5 of the same Act prescribes that "the

"Court may reduce the compensation if the accident was due to the inexcusable fault of the workman or increase it if it is due to the inexcusable fault of the employer."

A very recent Colonial Act is the Victorian Workers' Compensation Act, 1914, and it introduces a clause dealing with the question of "contracting out" and "physically defective employees." As you are aware, "contracting out" is expressly forbidden in this country unless under an approved scheme which provides for the payment of benefits at least as favourable to the workmen and their dependants as the corresponding scales contained under the Workmen's Compensation Act, 1906 (Section 3). The wisdom of this course has been frequently questioned, and it has been urged that the policy of our own Act in rendering an employer liable for the normal benefits in the case of employees who suffer from some infirmity, such as workmen who suffer from fits, is not serving the best interests of the unfit and infirm workmen themselves. This evidently is the view of the framers of the Victorian statute, and as the provision is of some interest I quote it in full as follows:—

"In the case of a worker who has in accordance with the regulations obtained from a certifying medical practitioner a certificate to the effect that his age or any physical or mental infirmity or incapacity from which he is suffering is such as to render him specially liable to accident or to render the result of an accident to him specially serious and who has entered into an agreement in writing with his employer as to the maximum amount of compensation to be payable to him under the Act in respect of accidents happening after the date of the agreement the compensation shall not exceed that maximum but the maximum shall not be less

all not exceed that maximum but the maximum all not be less
"1. where death results from the injury and the "worker leaves any dependants than fifty pounds, "2. where total or partial incapacity for work "results from the injury than a weekly payment "during the incapacity after the first week of five "shillings or one quarter of his average weekly "earnings whichever is the larger and a total "liability of fifty pounds."

In the same Act power in regard to the awarding of lump sums is defined (Section 7 Sub-section 3) by stating that

[&]quot;when a lump sum is awarded it shall be equal to the present value at 5 per cent. compound interest of the

"aggregate of the weekly payments which would "probably become payable to the worker during the "period of incapacity if compensation by way of a "weekly payment were then awarded in lieu of a lump "sum."

Another provision declares (Section 37) that

"it shall be obligatory for every employer to obtain "from the Insurance Commissioners or from an Insurer "approved by the Governor in Council a policy of "insurance or indemnity for the full amount of his "liability to pay compensation under the Act to any worker or workers."

Failure to comply with this provision renders the employer liable to a specified penalty.

We may now turn to our own Workmen's Compensation Act, 1906, and probably the purpose of Workmen's Compensation could not be more clearly defined than it was by Mr. Asquith when he said:-

> "When a person on his own responsibility and for his "own profit sets in motion agencies which create risks "for others he ought to be civilly responsible for his "own acts."

If we deal with the Act in the spirit of that intention, and remember that the intention was to provide a simple and inexpensive remedy, we will not, I suggest, go very far astray, but we may well appreciate that a Parliamentary draughtsman does not always find it easy to give effect to intentions in clear and unmistakable language, and as Pope said:-

> "Your plea is good, but still I say beware, "Laws are explained by man, so have a care."

Following the appointment of the Committee of Enquiry, already referred to, certain Labour members introduced into Parliament a bill known as the "Workmen's Compensation Act, 1906, Amendment No. 2 Bill." This bill obviously had no chance of becoming law, but evidently it was the intention of the promoters to outline their scheme and, if possible, influence the Committee of Enquiry in their direction. I propose to review some of the more important sections of the Workmen's Compensation Act, 1906, making comments

thereon, and at the same time introduce references to the provisions of this Labour Bill. I hope I shall not be regarded as dealing with the subject too technically, but the limitation imposed by time will necessarily require me to assume a general knowledge of the terms of the Act at present in force.

As you know, the first section of the Act deals with the liability of employers to workmen and is of primary importance. The Labour Bill proposed to alter the first section in order to make it apply to personal injury by accident

"arising out of and in the course of employment or during the pendency of the employment."

The introduction of the word "pendency" is, I think, unfortunate, especially as a much simpler alteration could have produced the same effect. There are already libraries of litigation reports concerning the meaning of terms and phrases in the Workmen's Compensation Act, and if any further amendments are deemed necessary every attempt should be made to retain the language which has already been interpreted. hold, as is proposed, that an employer should be held responsible for every accident which arises in the course of employment would be a drastic amendment. If the clause were interpreted in accordance with the views of those who desire the amendment, it would include personal injury by accident arising from tortious or felonious acts, self-inflicted injuries, injuries due to the intoxicated state of the injured employee, or injuries due to other causes entirely unassociated with the nature of the employment. On the other hand, we can proceed logically step by step with the interpretation of what is meant by "arising out of," and when the final position is reached appreciate that hardships are being created. That would be where amendment becomes desirable. Taking the well-known case of Craske v. Wigan (1909), there is no reason to disagree with the dictum that a person must be able to say that the accident arises because of something he is required to do in the course of his employment, but when that is enlarged by the statement that a person must be exposed by the nature of his employment to some peculiar danger obviously a great deal depends upon how you are going to interpret "peculiar." An Insurance collector who slipped on a staircase (Refuge Assurance Co., Ltd., v. Millar, 1911) has been held to be

entitled to compensation because his employment accidentally or peculiarly exposes him to dangers of such an accident. On the other hand, a servant who slips in the street when proceeding to post an employer's letter (Needham v. Sheldon, 1914) is not entitled to compensation because she is not peculiarly exposed to the dangers of the street, but only uses them occasionally. This is the decision of the Court of Appeal, and yet it is not absolutely certain it is the law, because the question has only been before the House of Lords to a certain extent. That the House of Lords may interpret the meaning of "arising out of" in a different way is proved by the fact that the Scottish Court of Session interpreting the same section adopted a different view, and in the case of Hughes v. Bett (November, 1914) the Lord President gave expression to this contrary view:—

"A risk may be incidental to employment, even though a workman has to face it at wide intervals of time ". and the recent case in the English "Court of Appeal, Needham v. Sheldon, 1914, really "turned upon the doctrine that a risk is not incidental to employment when it is a risk which any "member of the public may be called upon to face. "I very respectfully dissent, because it appears to me "that such a doctrine is antagonistic to the terms of the "statute which we are here to administer."

Now, if it is clear that the English Court of Appeal is right in its view, and it is an undoubtedly legitimate decision based on previously decided cases, then I do not think that there can be any objection to an amendment of the law in order to embody the perfectly reasonable views of the Scottish Court of Session. This, of course, raises the question whether the machinery provided for obtaining an authoritative decision is not too cumbersome.

Judge Parry, in a chapter on Workmen's Compensation in his book, "The Law and the Poor," suggests that County Court Judges are best qualified to deal with matters concerning Workmen's Compensation, and suggests that appeals should be heard by a panel of three County Court Judges. I do not think many of us would agree with this view, but surely one properly-constituted tribunal is sufficient for the purpose of deciding appeals, and it should not be necessary to obtain the decision of both the Court of Appeal and the House of Lords

before the exact law on the subject can be stated with certainty. Incidentally, it is interesting to observe that the House of Lords is regarded as much more favourable to the workman than the Court of Appeal.

Bearing on the question of liability is the present defence (Section 1 (c)), which declares serious and wilful misconduct to be a bar to compensation unless the injury results in death or serious and permanent disablement. What constitutes serious and permanent disablement is generally regarded as a question of fact, and has been interpreted favourably to the employee. For instance, a machinist in the joinery trade lost the top joint of the middle finger of the right hand, and it was held that the Arbitrator was justified in holding that as serious and permanent disablement within the meaning of the sub-section (Brewer v. Smith, 1913). But it has been suggested that employers have been able to introduce the defence of serious and wilful misconduct in another form, by declaring that fatal or serious and permanent injury cases arising from such a cause do not arise "out of" the employment. In order to remedy the grievance, so-called, the Labour Bill (Section 1 Sub-section 3) suggests that

"the fact of such injury being attributable to the serious and wilful misconduct of such workmen is not

"to be evidence that such personal injury does not arise "out of employment."

Assume such a clause could become law and observe its effect. Its effect would occasion an enormous amount of litigation in order to ascertain its meaning. Personally, I think the clause has very little meaning. Employers have not and do not argue that because a workman has been guilty of serious and wilful misconduct in the performance of his duties the accident does not arise "out of" the employment. They contend with success that an accident does not arise out of the employment when an employee transgresses a prohibition which limits the sphere of employment (Plumb v. Cobden Flour Mills, 1914). In short, when an employee meets with an accident whilst doing something quite outside the scope of what he was engaged to do, you cannot make the employer liable for the injuries he receives. I think, however, there is room for some amendment in regard to the question of onus of proof. The present law is that where the known facts are equally consistent

with either alternative, namely, the accident has, or, on the other hand, has not arisen out of and in the course of employment, there is no room for inference either way, and the onus of proof has not been discharged. I think this might undergo some modification, and where an accident happens to an employee on the employer's premises there might be a legal assumption in his favour which would require to be negatived. This is particularly desirable in regard to accidents on board ship, but generally the Courts are quick to draw an inference in the workman's favour if it is at all possible.

I do not think there will be any difference of opinion in regard to the desirability of substituting some other provision for that contained in Schedule 1 Proviso B, which provides that an employer shall not be liable in respect of the first week if the incapacity lasts less than two weeks. Theoretically the intention of the clause may be defensible, but in practice it immediately initiates the workmen into the benefit of malingering. This is supported by returns dealing with the cotton industry, which showed that between the first and the second week only 4.01 of the employees returned to work, whereas between the second and third week 30.97 of the employees resumed their duties (Statistics of Compensation and Proceedings, Cd. 7669). By the law of average the proportion of employees returning to their duties between the first and second week should be greater. A compromise would be the absolute exclusion of the first three days, as is the case with the National Insurance Act, 1911.

The Workmen's Compensation Act, 1906, includes practically every employee, but there is one class, and a very necessary class, which is absolutely excluded from benefit both by the Workmen's Compensation Ast, 1906, and the National Insurance Act, 1911. I refer to casual employees not engaged for the purpose of the employer's trade or business. The type of person who is casually employed in connection with private houses is more deserving than the supercasual of the industrial labour market, and there are no reasonable grounds for the continuance of the exclusion. When we come to the question of compensation, we find that the Labour Bill does not suggest any alteration in the scale of compensation, but does provide for a different method of assessing the average weekly earnings (Section 7 Sub-section 2 No. 2 Amendment Bill). It is

proposed that the weekly payment should be three times the daily earnings on full time. The law at present is governed by a general instruction (First Schedule, Section 2a) to the effect that average weekly earnings shall be computed in such a manner as is best calculated to give the rate per week at which the workman is being remunerated, and there has been nothing inequitable in the application of that proviso. The Courts have decided that a workman's average is increased by overtime and diminished by inability to obtain employment, while the Act provides for time lost in consequence of illness to be disregarded. These are questions of fact applicable to the particular case of the workman injured or the grade in which he works, and no case has been made out for any change in the method.

There is also a further proposition (Labour Amendment Bill) that the Courts should award a lump sum to workmen who are incapacitated in consequence of an injury confined to a particular organ or organs. The wording is not at all happy, but presumably it is meant that for every permanent loss of a limb or part of a limb the Court should be empowered to award a lump sum. Nothing is said in regard to the amount to be granted—that is evidently being left as a matter within the discretion of each Court after having regard to the particular circumstances of each case. The desirability of providing for the payment of a specified lump sum is open to argument, but a proposal to give general power and thereby impose liability impossible to estimate until there have been years of litigation has not much to commend it.

I now pass on to the vexed question of malingering, and one of the Labour proposals (i.e., to appoint whole-time medical referees who do not engage in private practice) is, I consider, desirable, but it is only desirable if the medical referees have duties under the Factory, etc., Acts sufficiently extensive to enable the State to pay a salary large enough to attract the very best men. Even then there is bound to be legitimate ground for complaint, as medical science is not an exact science, and justice can never be absolute. A series of proposals are also introduced to govern the making of medical examinations. It is now proposed to prohibit a hospital surgeon giving evidence against a workman when the assent in writing of the workman patient has not been obtained. Another proposal is

that it shall not be lawful for a doctor to report to an employer giving his opinion regarding the probable duration of incapacity. This was argued in the House of Commons to be necessary, because employers stop compensation at the expiration of the time mentioned by the doctor, and frequently a doctor is wrong in his anticipation. This certainly is not the practice of the employers, and any employer who did adopt such a procedure would find his action disapproved by the Courts. Evidence based on speculation is not of any moment. Probably the best way of checking malingering would be to establish a cheaper and better way of deciding the fitness or otherwise of an employee for work. This is generally purely a question of medical evidence, and employees frequently receive sums out of all proportion to the nature of their injuries in consequence of the expense of the present machinery. I think reference to the medical referee, instead of depending upon the assent of both parties, should be compulsory on the filing with the Registrar of two medical reports stating that a workman has recovered or is fit for certain employment which has been offered to him, or has recovered to such an extent as to be able to perform some recognised kind of employment obtainable in the open labour market. The workman could then be invited to file a similar number of medical reports, and the opinions should be referred to the medical referee in order that he might consider their terms and also make an examination of the workman. Any question arising on the interpretation of the medical referee's report could be argued before a County Court Judge. This procedure would, at any rate, have the effect of greatly reducing the cost of obtaining a decision on a question of fact, namely, the condition of an employee. I quote one of the provisions of the Labour Bill, that requiring compulsory insurance (Section 4 Sub-section 2), which deals with the duty of every employer, and reads as follows:-

(a) To deposit with the Chief Registrar of Friendly Societies such sums as may be adequate to satisfy any liability which may possibly become incurrable by such employer in respect of every workman so employed by him under the principal Act or this Act; or

(b) To enter into a contract with such approved insurers as may from time to time be certified by the Chief Registrar of Friendly Societies to be satisfactory in respect of any liability which may possibly become incurrable by the employer in respect of every workman so employed by him under the principal Act or this Act.

It may be noted there is no provision in the clause for State Insurance.

The question of industrial diseases was very fully dealt with in a paper recently delivered to a meeting of this Institute, and so far as I know there has only been one other disease suggested (Amendment Bill, June 1914) as a desirable addition, namely, cataract, in the glass-making and bottle-making industry, and that is already in the present Act in a wider form than the suggestion. To summarise one's views based upon experience of the Workmen's Compensation Act, 1906, I think it may be said that the Act has worked smoothly, and the chief difficulties are difficulties which will never be absent from any Act of a like character. They are difficulties associated with questions of fact, and as Mr. Rigby Swift observed in the House of Commons, there will always be differences of opinion as to what did or did not occur. Certainly no amendment of the Act would meet present requirements if it increases litigation or does not impose barriers on imposition. There should be nothing but fair treatment for the person who legitimately meets with an accident in his employment, but there should be something harsher than mere contempt for the person who by his conduct places his own class under a ban of distrust and is the worst enemy of his kind.

In the concluding portion of my remarks I intend to deal with the relationship between the Workmen's Compensation Act, 1906, and the National Insurance Act, 1911. I do not mean the actual bearing of the provisions of the one Act upon those of the other—that is, or should be, generally appreciated by now. The Workmen's Compensation Act, 1906, continues to operate as hitherto, and the National Insurance Act, 1911, is an important supplementary measure dealing with a state of affairs outside the scope of the earlier Act. When the request for a committee to discuss the anomalies of the Workmen's Compensation Act, 1906, was under consideration, the Government, in approving the desire, rather surprisingly widened the scope of the proposed investigation by stating that the committee should also be empowered to consider the

relationship between the two Acts. This was coupled with a statement of importance made by the Under-Secretary of State for Home Affairs (whose recent resignation is to be noted), in the course of which the following words were used:—

"Of course, all who are interested in this class of cases know that a new factor has come into existence by the passing of the National Insurance Act, and just as my friends want a State-paid service of medical referees, so there is a suggestion made on behalf of the employers in regard to compensation rights of all kinds. That is to say, instead of insuring with private companies for one class of cases and paying contributions under the National Insurance Act for another class of cases, they suggest that there should be some organisation whereby employers could claim once for all to protect themselves against all kinds of claims—disablement, illness, accident, and so forth." (Parliamentary Debates, Vol. 62, No. 69.)

If there is a demand on the part of employers for State Insurance it is worthy of very special consideration, but careful enquiry amongst employers does not give any grounds for the belief that the few employers who made their opinion known to the Government were in any way representative of the general consensus of opinion among employers. That, I think, will be made very evident at the proper time, and among the many objections employers will have to a proposal which savours of a State monopoly is the obvious precedent it will create. There is a suggestion that the idea should be examined, because it will make for the more harmonious relationship between the Workmen's Compensation Act, 1906, and the National Insurance Act, 1911. This conclusion could be arrived at if a new scheme was devised resulting in the lessening of the cost or the more efficient distribution of the benefits. The question of cost need not detain us. Few people would care to venture the prediction that a State scheme in practice would reduce the charge on industry, while in regard to the payment of benefits the rendering of an employer liable for payment results in an easily ascertainable channel for distribution without any of the congestion which would follow the creation of a huge State Department. If any employer has thought that by favouring a State system of insurance he may obtain some contribution from his employees towards the premium he is at present

responsible for, a moment's reflection should convince him of his illusion. When the Workmen's Compensation Act, 1906, made an employer responsible for accidents to his employees, and granted a certain scale of benefits, it settled for all time the question as to who would have to be responsible for the initial payment, and whatever the future may bring forth two facts clearly emerge:—

(1) That the scale of benefits under the present Workmen's Compensation Act, 1906, will tend to increase rather than diminish, and

(2) none of the burdens which now rest upon the employers will at any future time be transferred to the

employees.

An even more solid ground for believing that the State intervention proposal will not stand reasoned criticism is that the whole subject has been under consideration recently. Before the passing of the National Insurance Act the matter was carefully considered, and the creation of a new national system of insurance offered the most favourable opportunity possible for such a course. The constitution of the State as the National Approved Society under the National Insurance Act, 1911, was then rejected, and amongst the abundant criticism with which that measure was greeted little or none was directed towards proving that it would have been a better measure if it had made the State responsible for the distribution of the general benefits. Moreover, the question might have been raisd then with much greater justification, for by the terms of the National Insurance Act, 1911, the State is a contributor to the fund out of which benefits are paid. Thus you will perceive that, notwithstanding the fact that the State was providing for an entirely new social requirement and subsidising the benefits fund out of the National Exchequer, private Companies were entrusted with the working of the Act.

I appreciate that the Approved Societies are governed in a very different way to the Insurance Companies who administer the Workmen's Compensation Act, 1906, but then the one is a contributory and State-supported measure while the other is not. The employees having to pay a weekly levy under the National Insurance Act, 1911, and having free choice of their Approved Societies, naturally have their share in the management of the Approved Societies, and incidentally it may be

observed that the embarkation on State Insurance might, from the point of view of the employees, reduce their direct interests in the control of National Insurance to something very negligible.

If we proceed a step further and compare the principle upon which contributions are levied by the different Acts, we find that it would be very difficult to embody the Workmen's Compensation Act, 1906, and the National Insurance Act, 1911, in one comprehensive measure. The National Insurance Act proceeds on the assumption that all persons are equally liable to sickness, and charges a flat per capita rate. Of course, some occupations undermine the constitution of the individuals engaged therein in a special manner, and this will doubtless be dealt with after due experience of the National Insurance Act, 1911. Indeed, such a development is anticipated by Schedule 63 (1), which provides for an increased levy on employers where excessive sickness is due to the neglect of hygiene in factory or mine. On the other hand, the cost to the employer under the Workmen's Compensation Act, 1906, is measured by the hazard of the employment, and the rate, which is, of course, based upon the wage expenditure, varies from the equivalent of 1d. per week per employee to as much as 3s. per week in specially dangerous occupations. We know that profits are not necessarily larger in hazardous employments than they are in employments where the risk of accident is slight, but any attempt to institute a system of charge under the Workmen's Compensation Act, 1906, on the basis of a flat rate would now cause more resentment than satisfaction. Obviously it is desirable to keep accidents at a minimum, and perhaps the rating of employments in accordance with the number of accidents they cause is the fairest possible method. It must also be remembered that the benefits of the Workmen's Compensation Act, 1906, are very much superior to those of the National Insurance Act, 1911. The weekly benefits of the Workmen's Compensation Act, 1906, reach double the limit of those of the National Insurance Act, 1911, and, moreover, continue for an indefinite period without reduction. It would not be possible to provide for anything approaching a similar scale in regard to a sickness scheme, and that is an additional reason why the Acts could not be made part of a general uniform policy.

As a final point, it may be observed that the Workmen's Compensation Act, 1906, provides generous death benefits in connection with accidents arising out of employment, and this, of course, is quite foreign to a sickness scheme. I think we may anticipate the conclusions of the House of Commons Committee, in so far as they relate to the relationship of the Workmen's Compensation Act, 1906, to the National Insurance Act, 1911, by saying that, however simple and attractive it may seem to have one scheme instead of two, the practical result of such an alteration would produce the maximum of irritation, inconvenience, and hardship without being attended by any of the counterbalancing benefits which are claimed by supporters of the change. After all, those who advocate the change will have to produce their measure and their provisions, and, judging by the difficulties which we know are associated with any attempt to combine the two Acts, we can await the proposals. I think we will wait a very long time before anything practical emerges.



LIFE SAVING AS A FUNCTION OF LIFE INSURANCE.

By EUGENE L. FISK, M.D., Director of Hygiene, Life Extension Institute, Inc., New York, U.S.A.

A Paper read before the Insurance Institute of Toronto, 20th November, 1914.

In a broad and general sense, can human life be saved? In other words, is the human race still measurably below a perfect adjustment to environment?

Does the fact that statisticians and actuaries have ascertained the existing death-rate in communities and among insured risks lay a sacred obligation upon the general population and upon policy-holders to continue to die at established rates?

If the mortality among insured risks, at the end of a given year or of a given quinquennium, falls below the rate theretofore sustained among insured risks generally, is it necessary that violent means be taken to uphold the "law" of mortality?

If one enters a group of British insured lives at the age of 35, is there no escape from the probability of dying exhibited for that age as a function of the O^{M} table?

Has our civilisation—supremely successful in the art of destroying life—developed no resources or forces for the saving of human life?

If it has, can the harnessing of these forces for direct systematic and intensive work among policy-holders be made a proper function of Life Insurance?

I ask these questions not out of morbid curiosity, but in order that we may proceed logically in considering the subject. Unless you and I can agree upon the verity or at least the inherent probability of certain premises, everything that follows is mere dialectic hash unfit for mental alimentation.

I shall assume that you accept the following premises:—

The human race has not reached a condition of perfect adjustment to environment.

The death-rate—in an immediate sense—is not fixed by Divine law, nor yet by actuarial science.

Man is not absolutely controlled by mortality tables, but mortality tables are controllable by man.

The death-rate is largely an expression of the reaction between heredity and environment on the one hand, and of human conduct on the other hand.

Our civilisation has developed powerful resources for the upbuilding of resistance to disease and for the prolongation of human life.

These forces have been harnessed for direct, systematic, and intensive work among policy-holders in a number of important Companies. Thus, life saving has actually become a function of Life Insurance.

Possibility of Lowering the Death-Rate.

The question now arises: To what degree can this work be made effective? The answer involves a study of the conditions that now govern mortality, both in the general population and among insured lives.

The most striking instance of a smashing of the death-rate by an adjustment of the environment to the individual is shown in the Canal Zone, where diseases that had been regarded as necessary afflictions or "acts of God" were practically eliminated and an annual death-rate of 48 per thousand hammered down in five years to 21 per thousand.

Numerous similar instances could be cited of cities where filtration plants, or sewage disposal plants, have been established, and typhoid death-rates that had been regarded as time-honoured landmarks, have been ruthlessly cut down, with utter disregard for the feelings of those who cling to the customs of their forefathers.

The value of the work completed in the Canal Zone by Gorgas, and started by him in South Africa, cannot well be exaggerated. After placing to his credit the lives saved, we must add the far greater public service rendered in the lesson his work reads to humanity: That "public health is a purchasable commodity."

Now that the way has been shown, the stamping out of typhoid, yellow fever, malaria, plague, and kindred diseases, is simply a matter of funds and a trained scientist in authority.

This conquest of pestilential disease, and the increasing control of tuberculosis and other communicable diseases, have lowered the death-rate in all civilised communities during the past 30 years. Life Insurance Companies have shared with the general public in these benefits. They can well afford to aid in this warfare, by educating their policy-holders in their duties to the State; by carrying to them in the most authoritative and effective way a knowledge of community and household hygiene.

While it is true that the death-rate during the past 30 years in the United States and in England and Wales has fallen to a remarkable degree among those under 30 years of age, the rise in the mortality at the later age periods has, to a considerable extent, in the United States, neutralised this advantage.

Right here we find the opportunity—amazing in its possibilities—to make life saving a most important function of Life Insurance.

We can capitalise the earning power, the financial value, of a man, but can we capitalise his total value to his family and to himself?

Which is the greater function, the more important service to humanity?—To save an income, or to save an income and a man?

To visualise what I have ventured to term the amazing possibilities of this opportunity, it is necessary to study more closely the mortality changes that have taken place in the past several decades.

English versus American Vitality.

In England and Wales there has been a pronounced fall in the mortality since 1880 at every age period. At ages 20 to 25, the improvement during this period, 1880 to 1910, amounted to 38 per cent. (8·2 to 5·3 per 1000). Since 1881-5 the typhoid death-rate has dropped 66²/₃ per cent., and the tuberculosis death-rate has fallen 32 per cent. In the same period the mortality from degenerative diseases of the heart, blood vessels, and kidneys has in the aggregate remained practically stationary, although lately showing a downward trend consistent with the improved mortality at the older ages.

Among the British insured lives there has been noticed a similar trend. In 1907 a study that I made of the mortality among young entrants as compared to old entrants showed the following conditions:—An improvement of 20 per cent. among entrants under 25 was noted in the O^{M} experience (1893), as compared with those in the H^{M} experience (1869), while entrants over 60 in the O^{M} experience showed an improvement of 5.9 per cent. as compared with those in the H^{M} experience.

In the United States, the census and registration statistics have, until recent years, been so incomplete and unsatisfactory that the conditions cannot be traced with the same exactness as in the British records. Nevertheless, this material is not absolutely useless, as some have supposed. Certain massive trends of mortality can be discerned, and such evidence can be checked by the mortality records of certain communities where fairly accurate registration statistics have been kept.

In 1903, Mr. John K. Gore called attention to the increasing mortality from the degenerative affections, as shown in the records of the registration cities; also to the improvement in the death-rate among young lives, and the increase in the death-rate among the elderly. Subsequently, my own research and that of Mr. E. E. Rittenhouse developed a considerable body of evidence, showing that in the United States registration area as a whole, and in separate States and registration cities, a fall in the death-rate from typhoid, tuberculosis, and other communicable diseases has accompanied a decline in the death-rate under age 40 similar in degree to that exhibited in England and Wales. Unlike the British experience, however, there was a pronounced rise in the death-rate at the later age periods, paralleled by a very heavy increase in the death-rate from diseases of the heart, blood vessels, and kidneys.

In my paper on young and old entrants above referred to, similar conditions were noted in the experiences of American Life Companies—a fall in the death-rate during the past 30 years among entrants under 25, of 30 per cent., and an increase in the mortality after age 60 in modern experiences as compared to the earlier experience of 15 to 34 per cent.

In the recent medico-actuarial investigation of the experience of 43 American Companies, a similar trend is exhibited—a pronounced improvement among the young entrants, 15 per cent. for ages under 40, this improvement rapidly diminishing into an increase of 2 per cent. after age 60.

THE COST OF NEGLECT PAID IN HUMAN LIFE.

Without entering into any debate as to the degree of these changes, it must be conceded that the mortality at middle life and later is needlessly high; that the death-rates from the chronic degenerative diseases and from cancer are heavily on the increase in the United States, and that we here have a neglected field in which to accomplish, by a different line of attack, quite as brilliant results as have been attained in the conquest of communicable disease.

What is the remedy for this life waste, this decimation of our population, which would be looked upon with horror if caused by Zeppelins or machine guns, but is viewed with equanimity by all except the loved-ones of those who are abruptly taken in the prime of life and work by apoplexy, heart disease, Bright's disease, or cancer?

Not an elixir of life, not a fountain of perennial youth.

I fully appreciate that if we abolish the death-rate, we must abolish the birth-rate, or annex some planet to take the over-flow.

This is largely a matter of plain commonsense. We know that there is too much sickness, suffering, and premature death from chronic disease. We know that these diseases creep upon us slowly, insidiously; that their first manifestations that send us to a doctor may be at a stage when we are past his help. Does it need a Solon or an Aristotle to determine what shall be done to prevent such catastrophies?

Recently I talked with a textile manufacturer, who informed me that he paid four men \$75 per month each to do nothing but inspect and test the machinery in his plant. These men are continually at work. They do not sit in their offices and wait for a breakdown to be reported. If a breakdown occurred, very likely they would lose their jobs. When I asked this man how long the plant could run without such inspection, he smiled pityingly—such a question required no answer.

The same principles are applicable to the human machinery. If a comparatively simple inanimate machine requires daily inspection, is it too much to inspect once a year the marvellously complex human machine with its almost infinite capacity for going wrong?

The comparison of the human body to a machine is not overdrawn. The heart is a pump, and the blood vessels form a system of elastic tubes. This system is liable to overstrain, and its life largely governed by the use that is made of it. If the early signs of strain or poison are detected, the patient can be safeguarded. Even after arteries are definitely thickened and hardened, a proper manner of living may prolong the individual's life indefinitely, while a life of strain or indiscretion may quickly bring about progressive degeneration and death.

The degree to which medical science and modern knowledge of personal hygiene can modify, check, or prevent such conditions is a medical and not an actuarial question. Actuarial guidance is, of course, necessary in applying this knowledge to Life Insurance practice.

THE OPPORTUNITY OF LIFE INSURANCE.

So this is our point of attack. Thoroughly examine the human body at least once a year. With the knowledge thus gained, it is possible for medical science, and the new-born science of personal hygiene, not only to check the progress of disease, but to lead those of average health up to higher planes of physical efficiency and well-being. It is not enough to keep people out of sickbeds. The general level of fitness and capacity for living long and living well must be raised.

But why should this be a function of Life Insurance?

First, because a Life Insurance Company has a direct business interest in reducing mortality, if the mortality saving will cover the cost of doing the work.

Second, a Life Insurance Company has available the channels through which it can readily and effectively reach a vast body of people. There are six million old-line policy-holders in the United States, each with his zone of influence.

Third, because the successful performance of this function would just about double the value and meaning of Life Insurance as a social institution.

EXPERIENTIAL EVIDENCE.

Turning from theory to practice, let us see what body of experience there is to support the contention that a Life Insurance Company can carry on such work with profit and success.

In 1909 the Provident Savings Life Assurance Society extended this privilege of yearly examination to its policy-

holders. This work was continued by the Postal Life, after its re-insurance of the Provident's risks. A four years' experience, showing the results of this system, has been exhibited in a number of public addresses, and more recently in a paper by Mr. C. W. Jackson, read before the Actuarial Society of America.

Approximately 2500 people were examined, 1000 of whom were found sufficiently impaired to require medical treatment or advice. The average age of the impaired risks was 51, and the average duration of the policies 12 years, while the actual mortality as compared to the expected by the American table was only 93 per cent.

By valuing each of these impaired lives according to such knowledge as we possess of sub-standard mortality, an expected mortality of 200 per cent. was predicated.

From these figures we derive the following presentation of the probable savings resulting from the application of the service supplied by the Institute to a Company with 100,000 policy-holders:—

Expected Mortality in	Gross Annual Savings
Sub-standard Group	Per \$1 of Expense
Allowing for Impairments.	For Entire Service.
Estimated at 200 per cent.	\$12.90
Estimated at 150 per cent.	6.80
Estimated at 125 per cent.	3.70

Approximately 5 per cent. of the 100,000 policy-holders to whom the privilege is offered will actually take the examination annually. The annual cost of these examinations and the saving on the impaired group only,* using the Provident Savings-Postal experience, and the Institute's charge for this service (\$3 per examination) as a basis, will be as follows:—

Expected Mortality in This Sub-standard Group		Gross Annual	Net
This Sub-standard Group	Annual	Savings per	Annual
Allowing for Impairments.	Expense.	\$1 of Expense.	Savings.
Estimated at 200 per cent.	\$15,000	\$12.90	\$178,500
Estimated at 150 per cent.	15,000	6.80	87,000
Estimated at 125 per cent.	15,000	3.70	40,500

^{*}This does not include the favourable mortality influence on the non-impaired group, nor on the entire body of policy-holders receiving the advice, many of whom will go to their own doctors; nor does it take into account the value of the service as a good-will producer.

In the Provident Savings-Postal experience, many of the policy-holders were far worse than any sub-standard risks on which we have any available experience; indeed, a number were far advanced in disease and died a few weeks after the examination, thus contributing to the actual mortality of the group, which was 93 per cent. of the American table. Between 93, the actual mortality, and 200 per cent., the assumed expected mortality, there is a wide margin of possible saving.

No matter how favourable the mortality may be in any particular Company, the offer of this privilege of health examinations will draw a certain number of seriously impaired, sub-standard and border-line risks, among whom the possibility of saving is quite as great as that obtained in the Provident Savings-Postal group.

The lower estimates, however-150 and 125 per cent. of the American table—can be used as a basis for figuring the probable saving in Companies where the average duration of the insurance or other conditions would reasonably justify the view that a smaller margin of possible saving exists.

In Mr. Jackson's paper particular attention is directed to the fact that the experience on small sub-standard groups—in many respects resembling the Provident Savings-Postal group -is available, showing mortalities of 175 and 200 per cent. of the American table. A group of similar size, insured under lien policies, actually experienced a mortality of 200 per cent. of the American table during a period of four years.

The question may be raised regarding the continuation of such a rate of saving. In this connection we must bear in mind that from a mortality standpoint a Company as a whole is in a state of moving equilibrium. A particular group of policyholders may reach or even pass the tabular rate of mortality, but the lapses, deaths, and new entrants keep a Company's general mortality on an even keel for an indefinite period.

By the introduction of conservation methods into a Company, the general mortality of those coming under this influence may be permanently lowered, just as the mortality in a community can be permanently lowered by the establishment of a filtration plant.

The further question may be raised: What impression can you make on the mortality of a Company that already has a low mortality? Will the possible margin of saving repay for the cost of carrying on the work?

Let any Company that boasts of its low mortality examine its

death claims, and see how many were the result of preventable or postponable diseases. Even the death-rate from accident can be lowered by improving the efficiency of the body.

A 44-YEAR RECORD OF HOLDING DOWN THE DEATH-RATE.

The possibility of lowering the mortality, even in a group of high-grade risks, by a conservation influence, is shown in the experience of the United Kingdom Temperance and General Provident Institution.

The general class in that Company showed a very low mortality (91 per cent., O^{M} table), but the abstaining class, about equal numbers and homogeneous to the general class in all respects except for the non-use of liquor (according to the actuary's statement), showed a mortality of 27 per cent. below that of the general class over a period of 44 years.

Applying the mortality rate of the abstainers to a Company where the average age is 35, the distribution of policy-forms normal, and the mortality 9 points below the British O™ experience, a reduction in the net premium required of \$3.03 would result.

That guidance in personal hygiene, medical supervision, and the early detection of unsuspected disease in subjects voluntarily submitting themselves for health examinations would exercise an influence at least equal to total abstinence seems reasonable.

In that case, the saving in such a Company would be \$3.06 per thousand. If the average amount of the policies were \$2000, there would be an annual net saving of about \$3.06 on each policy-holder examined. (\$6.06 mortality saving less \$3.00 cost of examination.)

That the many influences included in the health service would greatly exceed the total effect of the single influence of total abstinence, especially when applied to a group exhibiting a lower average vitality than the general group and a willingness to heed advice, seems reasonable.

There is another way to present this matter suggested by the late Mr. Messenger, actuary of the Travellers' Insurance Company. Assuming that a life is prolonged one year, and that the average policy is \$2500, there would be a saving of \$100 in premium and \$100 in interest. Deducting from the premium 20 per cent. for insurance expenses, the saving would be \$180 for every life prolonged one year.

According to such a theory, the life of a \$10,000 policy-holder would only have to be prolonged three months to cover the cost of examining him for 60 years.

We believe, however, that in presenting this matter for actuarial consideration, we should deal in terms of mortality and not in terms of prolongation of life. It is not upon the length of life of the individual, but upon the mortality at the various ages, that premiums are based and expected mortality computed. The difference between the actual and the expected mortality on the mass of lives, or the difference in the net cost as applied to the individual must be the real measure of the saving. In the United Kingdom Temperance and General Provident Institution, this saving in one group as against the other continued for many decades, and was expressed in the most tangible and positive business manner by the payment of larger bonuses to the abstainers.

Just as the establishment of a competent Health Department in a community will lower the death-rate, so the introduction into a Life Insurance group of periodic and systematic medical supervision will bring down the mortality and keep it down so long as such an influence is operative. Your city has reduced the mortality from typhoid, diphtheria, and scarlet fever from 114 per 100,000 in 1910 to 27 per 100,000 in 1914 (January to Augsst). You are to have, I am told, the finest filtration plant in the world. Will it simply temporarily reduce your mortality, or will it continue to hold it down year after year?

NEED FOR SPECIALISATION IN THE WORK.

Conceding that periodic health examinations are to form a regular part of Life Insurance practice, why is it not possible for each Company to carry on this work separately through its own medical department? This, of course, can be done and has been done, but inasmuch as these activities are just commencing, it seems important to avoid the mistakes of the past, and not pass through long years of struggling evolution with health-conservation, such as we have gone through with medical selection. If in the early years of Life Insurance a central medical bureau could have been organised to do the specialised work of examining and passing upon risks, how much more rapidly the science of medical selection would have progressed. How much simpler and less embarrassing and

more economical this work would have been for the business managements of Life Companies. A reasonable degree of uniformity of practice which is even now lacking could, under such circumstances, have been attained. I do not wish to be understood as suggesting such a bureau at the present time.

The work of examining people for the purpose of prolonging their lives is far different from that of examining applicants for Life Insurance. There is an entirely different psychology behind it, and the work of making these examinations effective is likewise a specialised function, which can be better performed by one central organism provided it has the equipment and the scientific backing that it should have to carry on these activities.

THE LIFE EXTENSION INSTITUTE.

It is a remarkable fact that while these ideas were actually germinating in Life Insurance practice, Mr. Harold A. Ley, a prominent business man of Springfield, Mass., who carried a large line of Life Insurance, conceived the plan of forming such a central organisation to perform this service for the Life Insurance Companies and for the public at large. He carried the idea to Prof. Irving Fisher, of Yale University, who had long been interested in such matters, and the formation of the Life Extension Institute was the result. The Institute was established January last as a stock corporation, in order to give it permanence, but the dividends were limited and the broad purposes of the men behind it is to lower the death-rate and raise the level of physical fitness. Two-thirds of the earnings beyond 5 per cent. on the capital invested are to be expended in public health work, the expenditure to be controlled by a subsidiary, purely philanthropic, company. It is only on such a basis that men like Ex-President Taft, Chairman of the Board of Directors, and Surgeon-General Gorgas, Consultant in Sanitation, would give their services. Prof. Fisher has secured the co-operation of about one hundred of the leading scientists in this country and abroad, as a Hygiene Reference Board, to whom questions relating to the scientific policy of the Institute can be referred. The Board has already rendered very important services in reviewing the educational literature of the Institute.

The activities of the Institute are not confined to examining

the policy-holders of the Life Insurance Companies. Subscriptions are taken from individuals for the health examinations and educational service. The service is also extended to employees of corporations, the employers reasoning that the cost of the service is more than returned to them in the lowered morbidity and incrased efficiency of the working force.

A word regarding the method of carrying on the work may be of interest. In the Life Insurance service the first step is for the Company to enclose with its premium notices an announcement of the privilege, and a blank form for making application. On receipt of the application for examination the Company forwards to the Institute a statistical card containing certain information-age, occupation, residence, etc. The Institute then forwards to the policy-holder a personal history blank, calling for information regarding living habits, diet, exercise, etc.; also family history and information regarding past illnesses, disabilities, etc. This blank the policyholder fills out and presents to the examining physician, who forwards it to the Institute with his own report, a blank for which is furnished him by the Institute. The urine is forwarded direct to the Institute by the policy-holder, and is examined at the central laboratory. The total information received from these sources is then reviewed by men trained in the science of interpreting such data. The clinical findings, with the reviewer's comments, are then reported to the Director of Hygiene, who finally determines what message shall go to the individual. A report is made to the Insurance Company on the statistical card by means of codes covering the various impairments. This information is held as confidential by the Company, and is not interchanged with other Companies.

If no impairment is found, the individual is so informed. If a slight impairment is found, he is informed of its nature, and the report usually conveys a suggeston for its correction. If the impairment requires medical attention, the report is sent to the family physician, with the individual's permission, and he is requested to place himself under medical treatment. If he insists upon having the report direct, it is given to him, but he is urged to seek medical aid.

Keep-Well leaflets on subjects such as eye-strain, overweight, underweight, constipation, prevention of colds, etc., are given in appropriate cases. In the Individual and the Commercial services, monthly Health Letters are also issued.

It will be noted that the method covers more than a mere examination by the local examiner. It is a system which includes a close study and valuation of the individual as a going concern. It is essentially a health survey of every region of the body and of the life of the subject.

Faulty living habits may be given more weight than an actual physical impairment. As the urine, blood, sputum, gastric contents, and feces, are examined at the home office, in such cases as require it, and the personal history is given by the applicant, the system is valuable and effective, even in remote localities where trained clinicians are not available.

In the group, or commercial, service, an examining room is equipped in the establishment where the employees are to be examined and the work is carried on in the same manner as at the home office. Physicians are detailed to work on half-day service, alternately, until the examining is completed. All laboratory work is done at the home office, and practically the same routine, in the review and reporting of results, is followed as in the Insurance service.

As to results, a few figures, even at this early stage of experience, may prove interesting to you:—

RESULTS OF THE EXAMINATIONS OF EMPLOYEES OF COMMERCIAL HOUSES, BANKS, ETC., BY THE LIFE EXTENSION INSTITUTE.

Normal,				-	3.14 per cent,
Imperfect—Advice needed rega	ardi	ng	physica	al	
condition of living habits,		-		-	96.86 ,,
Not aware of impairment, -		-	-	•	96.69 ,,
Referred to physicians for treat	men	ıt,		-	59.00 ,,

CLASSIFICATION OF IMPAIRMENTS.

Moderate to Serious.

Organic heart disease, -	-	-		-	5.38	,,
Arterio-sclerosis—thickene	d arteri	es,		-	13.10	,,
High or low blood-pressure	, -	-		-	25.81	,,
Urinary-Albumin, sugar,	casts,		-	-	35.63	,,
Individuals showing comb	ined dis			of		
circulation and kidney	's, -		-	-	12.77	,,
Nervous,	-	-	-	-	.73	۹,
Lungs—possible tuberculos	sis, -			-	.99	,,
Venereal,	-	-		-	.46	,,

Minor to Moderate.

Functional Circulate	ory—Ra	pid, s	low	or int	er-	11.0	
mittent pulse,						11.37 p	er cent.
Urinary (high and	d low	speci	fic	gravit	y,		
crystals, indican	, etc.),	-	-	-	-	21.62	,,
Digestive organs,			-			6.12	,,
Constipation, -					-	14.70	,,
Nose and throat,		-	-	-		34.53	,,
Ears,			-	-		16.96	,,
Decayed teeth and in	nfected g	gums,	-	-	-	22.22	,,
Anæmia,			-		-	2.72	,,
Skin,		-			-	6.38	,,
Errors in diet (prono	unced),					13.70	,,
Errors in personal hy	giene,	-			-	31.60	,,
	Phys	sical	$Def \epsilon$	ects.			
Faulty vision, uncorn	rected,				-	16.03	,,
Flat foot,		-			-	3.19	,,
Faulty posture,		-	-		-	7.38	,,
Rupture-no truss, -						1.79	,,
Overweight-imports	int, -	-		-	-	5.45	,,
Underweight-impor	tant,	-	-	-			, ,
Unclassified,		-		-		7.38	,,

This statement shows the percentages that the various impairments are of the whole number of employees examined. Many employees, of course, show several combined impairments. Average age 30.

This table shows the proportion of impairments found among the commercial groups and others examined by the trained home office staff. The large proportion of the impairments of the heart, circulation, and kidneys seems almost incredible, until we reflect that—except where they develop in the course of acute maladies such as rheumatism or scarlet fever-such diseases are slow in their progress. The man who dies between 40 and 50 of apoplexy has probably for many years been developing the impaired condition of his blood vessels that permits of such a catastrophe. The large proportion of impairments affecting the circulation and kidneys is evidence in line with that already referred to derived from population and Insurance statistics, showing the rapid increase in mortality from these maladies, and their encroachment on the earlier years of life. This applies not only to the findings of slight traces of albumin or transient disturbances in blood pressure, but to the large proportion of cases showing actual structural

changes and those showing the combined impairments of the circulation and kidneys.

It should also be borne in mind that these examinations of willing subjects, desirous of learning their true condition, can be made much more thoroughly than a Life Insurance examination. These subjects are stripped to the waist and the entire bodily condition examined—eyes, ears, nose, throat, mouth, teeth, tongue, gums, abdominal organs, blood pressure, systolic and diastolic, and very often the blood and the sputum, and in some instances the Wassermann test is applied where it is desired.

The results show the value of such a thorough-going health survey. Instead of merely sifting out those actually suffering from serious disease, such as Bright's, tuberculosis, etc., we search for any impairment or defect that may be present, for it is by applying preventive or corrective measures to incipient and usually neglected conditions that the greatest gain is to be made.

In these average groups taken right out of the population, few will be found physically perfect, and about 95 per cent. of those found impaired will be unaware of impairment.

The Life Insurance experience is along similar lines, but modified by several conditions: a higher average age, the purely voluntary self-selection of each individual examined, and the fact that many of these examinations were made in remote sections by less highly trained examiners.

RESULTS OF THE EXAMINATION OF LIFE INSURANCE POLICY-HOLDERS BY THE LIFE EXTENSION INSTITUTE.

Normal,	-	-		-	-	2.40 p	er cent.
Imperfect—Advice n			ling	physic	cal	_	
condition of livin	g habit	s, -	•	-	-	97.60	,,
Not aware of impairs	nent,	-	-			93.04	,,
Referred to physician	for tre	atme	nt,	-	-	65.75	,,
CLASSIFICATION OF IMPAIRMENTS.							
Moderate to Serious.							
Organic heart disease						4.50	

Organic heart disease,	-	-	4.50	,,
Arterio-sclerosis—thickened arteries,	-	-	6.27	,,
High or low blood-pressure,	-	_	23.50	,,
Urinary-Albumin, sugar, casts,			53.60	,,
Individuals showing combined disturb	ance	e of		,,
circulation and kidneys,	-	-	15.83	,,

Nervous,				-			.92 р	er cent.
Lungs-possible tu	bercu	ılosis,	-	-	-	-	1.40	,,
Venereal,		-	-	-	-	-	.77	,,
	А	<i>Iinor</i>	to A	10der	rate.			
Functional Circulat	tory-	-Rapi	id, sl	ow o	r int	er-		
mittent pulse,	•		-	-	-	-	7.17	,,
Urinary,	•	-	-	•	-	-	25.05	,,
Digestive organs,	-	-	-	-	-	-	12.32	,,
Constipation, -	-	-	-	-	-	-	27.53	,,
Nose and throat,	-	-	-	-,		-	15.92	,,
Ears,							10.30	,,
Decayed teeth and	infect	ted gr	ums,		-		11.76	,,
Anæmia,				-	-		2.69	,,
Skin,	-		-		_		3.42	,,
Errors in diet (pron	ounce	ed),	-	-	_		30.85	,,
Errors in personal h	ıygiei	ne,	-	-1			68.04	,,
•								
		Physi	ical .	Defec	ts.			
Faulty vision—unco	orrect	ed,	-	-	-	-	5.51	,,
Flat foot,	-		-	-	-	-	4.11	,,
Faulty posture,		-	-	-	-		9.58	,,
Rupture-no truss,			-	-	-		1.12	,,
Overweight-impor	tant,		-		-	-	12.23	,,
Underweightimpo							9.13	,,
Unclassified, -								,,

This statement shows the percentages that the various impairments are of the whole number of individuals examined. Many policy-holders showed several combined impairments. Average age 35.

Even among those who are aware of impairment, much good can be done. Many of these people are neglecting themselves, and it is only when the full significance of their neglect is borne in upon them by this service that they are moved to seek proper medical supervision. Even those who are marked free from impairment benefit, as a group, by guidance and suggestion.

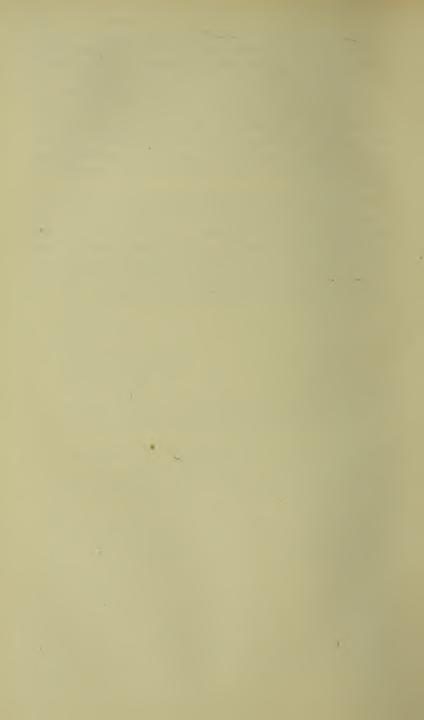
Although the Institute gives no treatment or direct medical advice, it is able to advise upon the best method of procedure in seeking medical advice, especially in cases where there is no family physician.

Is this work worth while? Is it consistent with sound ideals of human progress and development? In this world crisis that is facing us, will it strengthen the people to go through the ordeal, whether it be war or social and business reconstruction? These are matters of more than academic interest to Insurance men.

I have said that this new function of Life Insurance should more than double its value and significance as a social institution. And the proof lies here:—

The head of a family is receiving an income of \$5000 per year. On this income he maintains his family comfortably. He carries, say, \$10,000 Life Insurance; more likely \$5000. If he is taken away before his children reach maturity and self-support, what a tremendous change in the fortunes of his family—from \$5000 a year to \$500 a year—or perhaps only \$250.

We rightly felicitate the great institution of Life Insurance when it interposes \$5000 or \$10,000 between this family and immediate want. But this man was worth to his family \$100,000, valued in earning capacity alone. Add to this \$100,000 the priceless assets of family affection and guardianship, and then say which is the greater function: To keep this man alive, or to pay his debts and funeral expenses.



FIRE HAZARDS INCIDENTAL TO WOOLLEN MILLS.

By W. MILLER, London and Lancashire Fire Insurance Co., Ltd., Bradford.

A Paper read before the Insurance Institute of Yorkshire, 15th February, 1915.

What is a woollen mill? If we put this question haphazard to a dozen men probably all of them would answer that "it is a mill in which wool is made into cloth," whereas if the same question was put to an experienced Yorkshire Fire Insurance Surveyor he would doubtless answer, "I believe it to be a mill in which woollen cloth is made from materials containing as little pure wool as possible."

There was a time, I suppose, when the answer of the uninitiated was strictly correct, but competition has gradually created a demand for cheap woollen goods which has forced woollen manufacturers, frequently against their desires, to produce at a low cost cloth that, in appearance at least, will compare favourably with the most expensive article of the kind. To accomplish this end it has been necessary to use as a substitute for wool materials produced from woollen and worsted rags of every description, together with waste products from both woollen and worsted as well as cotton mills; and with these articles alone manufacturers are to-day turning out cloth that for smartness and cheapness are marvels of textile production. So closely do some of these cloths resemble the more expensive cloths, that it is difficult even for many merchants to detect some, at least, of the added materials used in their manufacture. It is therefore owing to the introduction of these waste products that woollen manufacturers have been able not only to produce cheap cloths but also large varieties and different qualities of such

cloths, which can be used for a multitude of purposes, and, incidentally, have brought into existence new trades which necessitate the employment of an immense number of men, women, and young people. It is also owing to the use of these added materials that the woollen mills tariff has developed into the complicated piece of Insurance literature that it is to-day, and, moreover, has been the medium for the production of many interesting and instructive papers upon woollen mills and matters connected therewith. I may also say that these same waste materials were the cause, I might truly say the snare, which induced me to promise to appear before you this evening in an attempt to give my views on "Fire Hazards Incidental to Woollen Mills."

FIRE HAZARDS.

Fire is said to be a force of Nature originated by natural as well as artificial means, and made use of by man for all kinds of purposes and in an ever-increasing degree. Like all forces of Nature it can be harnessed but not always fully controlled. It is liable to break bounds and do damage—sometimes terrible and widespread damage.

It is, even yet, in some of its forms not fully understood, nor its hazards fully realised or provided against. Fire hazard, from the point of view of that which produces fire, is a serious matter, but when considered from the point of view of that which feeds the first spark or flame, and without which such spark or flame would die out or otherwise prove harmless, fire hazard becomes an exceedingly dangerous and alarming matter. I will therefore divide the subject of fire hazard under two heads-first, the primary or originating hazard, and second, the contributory or ignition hazard—bearing in mind that without the latter the primary hazard from an Insurance point of view is in itself of very small account. Now, the primary or originating hazards are, as a rule, fairly well known, whereas the contributing hazards are known and understood in part only, and are therefore to be looked for, duly considered and provided against as far as possible.

For example, heating and lighting arrangements are primary hazards that are always present, as are also hazards incidental to processes carried on; these we usually do not deem important in themselves, but they become important only when inflammable or combustible materials are in close proximity. We pay no attention to an open coke fire in an iron foundry, but certainly object to its use in, say, a woollen scribbling room. A smith's fire is of no account in a blacksmith's shop, but we should protest against its presence in any room where raw cotton was stored. Naked gaslights are passed without serious question even in a woollen rag-sorting room, but we should refuse to allow them in a room where petrol was used.

In dealing, therefore, with fire hazards incidental to woollen mills, or, indeed, to any kind of textile mill it is, I think, necessary that we should consider them from the two separate points of view systematically, as by so doing we are likely to increase our knowledge in this connection more precisely and more rapidly than by considering them from a comprehensive point of view. I do not for a moment suggest that any one of us has not always kept the different points of view in our mind, but I think some of us may have treated them as parts of a whole rather than as two separate and distinct features.

The intimate knowledge of fire hazard is probably our greatest asset, and it is therefore necessary that we should use every means in our power to acquire such knowledge, and also take advantage of every opportunity of putting that knowledge into practical use. So far as the machinery used and the processes carried on in woollen mills are concerned, these have been already so fully described and illustrated by the admirable papers of Mr. J. B. Roberts, Mr. J. P. Eddison, and others, that there will be no necessity for me to do more than touch incidentally upon them as I proceed with my paper. As regards the fire hazards, however, I shall be obliged to traverse to a more or less extent the ground covered by the said papers, seeing that these hazards remain much the same to-day as when the earliest of the said papers was written.

I will commence the descriptive part of my subject with the consideration of

RAW MATERIAL STORES.

The raw materials used in woollen mills are many in number, and include wool, noils, worsted wastes, woollen wastes, mungo, shoddy, flocks and camel hair oil bagging; all these, except wool,

noils, and flocks, being usually in a more or less oily condition. In addition to these are cotton and cotton wastes, some of the latter being oily. Now, it is a remarkable thing that many woollen spinners apparently believe that any old shed, whether of brick or stone, iron or wood, is good enough for the storage of many of these very miscellaneous materials, and even in some otherwise fairly-well-managed concerns we find raw materials stored under unsatisfactory conditions.

Not infrequently at low class mills cheap raw materials are also kept in the open, exposed to all kinds of weather. When it is known that there is always danger from spontaneous combustion of oily material when stored under damp conditions, and also when exposed to the sun's rays in hot weather, it is not to be wondered at that fires do occasionally occur in raw material stores as they exist to-day. The danger of fire in these stores is always greater when pulled material fresh from the grinding room and willeyed material from the willey house are kept there, as sparks which may have originated during the preparatory processes may remain undiscovered and lead to outbreaks when least expected, particularly when such materials contain an appreciable amount of cotton, and such fires become serious in buildings where raw cotton or cotton waste is stored to any extent.

I look upon raw material stores as being specially instructive to surveyors, and if a choice of procedure is given to them they should invariably commence their duties at these buildings. so doing they will at the outset ascertain fairly definitely the classes and qualities of the added materials worked up at the mills they visit, and also obtain a reliable as well as an independent opinion of the percentages of pure wool, cotton, etc., used. Moreover, the general condition of these buildings and the manner in which the contents are arranged give a fair indication of the care, or absence of care, bestowed on the management of the mill itself. At this point I wish to say how strongly I object to the storage of mungo or other oily material in any non-fireproof storied mill-whether used for scribbling, spinning, weaving, or subsequent process by machinery—it matters not if the building is only one storey and cellar high, as the feature is very undesirable from any point of view.

WOOL WASHING, DYEING, AND DRYING.

The processes of wool washing and dyeing call for no comment, but the various modes of drying that follow do require consider-There was a time when wool-drying was carried on almost entirely in the boiler-house building, usually on a perforated iron floor in the room above the boiler and flues thereto, and this is still done at many mills. In these instances we find the iron floor fixed about three feet to five feet or more above the boiler crest. The great heat arising from the boiler and flues has the effect of both originating and spreading a fire, and although it is always difficult to ascertain the exact cause after a fire has progressed, it is in such a case generally attributed to vegetable and other foreign matter which has fallen from the material being dried and accumulated upon the flues and boiler. When dyed wool or woollen material is being dried, especially if aniline dyes have been used to the material, there is danger from spontaneous heating; and if flocks or other materials containing cotton are dried, the fire hazards increase in proportion to the amount of cotton in the said materials. Matches that may have been accidentally dropped in the wool or other material to be dried add to the ordinary hazards.

If the roof of the drying-room is non-fireproof the effect of continuous heat upon the woodwork renders it highly combustible, and liable to extend a fire rapidly. Drying of flocks, sheets, and other articles in the same compartment with the boiler, or upon the boiler or flues, is particularly hazardous, and the same must be said of cotton-drying in any part of a boiler-house.

Occasionally we find dyed wool and woollen material being dried by fire-heated air obtained from a fireproof chamber, a process we may consider distinctly objectionable; but very much of the drying of wool, etc., is now done in iron machines of an enclosed type, heated by steam-heated air or by steam pipes, although wooden machines similarly heated are occasionally used. In all such drying machines fans are used for distributing the hot air through the machine. In those heated by steam pipes there is danger of fire arising through the overheating of vegetable and other dust which collects on and about the pipes, and also from friction in the neck of the fan, as well as from spontaneous combustion of dyed material. When the machines

are of wood the contributing hazard often leads to the destruction of the machine and its contents.

The model drying machine from an Insurance point of view, therefore, is the enclosed fireproof one heated by steam-heated air obtained from a fireproof chamber detached from the machine (preferably below the machine and properly separated therefrom), and in such a machine the hazard from drying undyed wool or woollen material is reduced to a minimum. In the case of dyed material, including cotton, being dried in such a machine, it is not probable that a fire would extend beyond the machine itself. I think we ought to recognise more clearly the difference in hazard between a model drying machine and a wooden machine of any kind, and between a fireproof room and a non-fireproof storied building or shed in this connection.

RAG-GRINDING.

It is, as a rule, only at mills working up a rather large proportion of mungo or shoddy that we find rag-grinding carried on upon the premises, but as such materials form a very important feature in connection with woollen mills, it is desirable to refer fully to the fire hazards connected with the said processes, whether the materials produced are for private or trade purposes.

The woollen rags used in the process are assumed to have been shaken and freed from dust, sorted and cleared of buttons, buckles, hooks and eyes, and other hard substances, and to a large extent divested of seams. They are then blended as required, sprinkled with oil (usually black oil), and carried to the leather feed of the grinding machine which passes them on and through the fluted rollers into the machine, there to be torn to pieces by the fast revolving "swift." The ground material is then blown out of the machine in the shape of woolly fibre into the open room, or more generally into a small enclosed chamber or "blowhole." The process remains the same as it was 30 or more years ago, and the originating hazards also, the latter arising from friction within the machine through buttons or other hard substances, and occasionally matches being inadvertently passed with the rags into the machine. These come in contact with the iron spikes or teeth of the "swift" and sparks are thrown off amongst the oily woolly material in the

machine, which material readily ignites and spreads to the wood covering of the machine and to the material within the room. There is a possible hazard from spontaneous heating of oily rags, ground material and waste, especially if left in the room after closing time. Where naked lights are used there is liability of fluffy waste or "fly" falling from overhead fixtures and passing through the lights to material upon the floor. The risk from friction within the machine cannot be avoided, though it can be reduced by careful oversight, and it varies from the contributing point of view in accordance with the class and quality of the rags worked up. Taking the usual definition of mungo as material made from hard woollen and worsted cloth rags, and shoddy as material produced from soft woollen and worsted rags, such as stockings and other knitted goods, blankets, flannels, and shawls; it is easily understood that the resistance of hard rags will lead to a greater amount of friction within the machine than that of soft rags, and the resistance of rags freed from seams than seamed rags. From a contributing point of view it must also be borne in mind that oil is invariably used with the rags unless the material to be produced is intended for upholstering or bedding purposes (and for which linsey rags are generally used), and whilst the oil reduces by an appreciable extent the friction within the machine it adds greatly to the fierceness of a fire. Of course, it is to be expected that the rags for producing mungo will require a larger percentage of oil than soft rags.

A rag machine used solely for stockings or other loose-knitted woollen or worsted goods will produce the minimum amount of friction possible from the grinding process. In every grinding-room the nature of the construction of the "blowhole" has an important bearing upon the area of a fire therein, and although many of the modern grinding-rooms have *fireproof* "blowholes," they, and the doors to same, are very frequently defective. In fact, I cannot say that I have ever found a perfectly sound and strong "blowhole" with a fireproof door worth calling such properly fixed thereto.

When we compare trade risks of the kind with private grinding-rooms we must understand that the former will usually contain two to four or more machines which work almost continuously, whereas in a private grinding-room one or two machines only will be used and intermittently worked.

Moreover, in a trade risk the stock in the grinding-room will bulk more large than in a private room, and the quality of the rags ground will also usually be of a more mixed character and lower quality, especially when commission work is done, features which have an important effect upon the rapid spread of a fire. The presence of an appreciable amount of cotton in the rags will increase the contributing hazard invariably.

It may surprise some of the gentlemen present to know there are in the West Riding about 130 rag-grinding concerns worked for trade purposes, in addition to the many private grinding rooms before mentioned, and of this large number not many can be said even to *closely* approximate to the level of a perfectly model risk, and the large majority of the risks are so unsatisfactory as to lead many Fire Offices to hesitate before granting an insurance upon any one of them.

A model rag-grinding room should be fireproof, having a flagged or concrete floor, not boarded over, lighted with incandescent electric light, containing machines entirely of iron, and possessing a metal pipe connection to a perfectly fireproof "blowhole" of strong construction, the only door into it being a substantial iron or metal-covered one with a secure latch or bolt. As little stock as possible should be kept, and no disused machine, or parts of a machine, or other disused utensil should be allowed therein.

WOOL OPENING AND BURRING.

At woollen mills where pure raw wool is largely used we occasionally find a machine for opening and cleaning same (especially if the wool is of a burry character and requires to be carbonized upon the mill premises); and whether the machine is an ordinary willow, an opening machine similar to a cotton opener, or a tenter-hook willey, I do not consider the process of opening a hazardous one so long as unoiled wool only is passed through the machine, and provided the machine is entirely of iron, and the dust extracted by the opening, etc., process is drawn off by a fan and otherwise regularly cleared from beneath the machine.

Burring of pure unoiled wool is now rarely carried on, but whether the wool operated upon contains an unusual amount of vegetable matter or not I do not consider the process to be a specially hazardous one from either point of view.

GARNETTING OR WASTE OPENING.

The process of garnetting is, like rag-grinding, carried on mainly as a separate trade, but some woollen and worsted spinners in a large way of business have a machine for this purpose. On private premises such a machine is, when at woollen mills, generally in a building outside the mill, and provided it is enclosed in metal and used for pulling yarn waste entirely free from cotton I do not think we may consider the process a very dangerous one, notwithstanding the fact that oil is used with the waste.

The primary hazard of garnetting arises mainly through friction within the machine, the contributing hazard varying with the class and character of the waste worked up and upon the amount of cotton contained therein. In trade risks in which commission work is usually done we find present the worst features of fire hazard connected with garnetting, the material sent by both waste dealers and spinners being largely of an inferior character. In the case of angola waste, in which cotton up to 80 per cent. may be found, and any waste of a hard and knotty kind (even if such waste has been first treated by a knotting machine), I should not hesitate to decline a trade risk where these kinds of waste are pulled. Other waste, including that from Scotch mills, may be sent in such an oily condition that the risk from spontaneous combustion is ever present. some of these trade risks, therefore, the originating as well as contributing hazards almost approximate to those of some mungo or shoddy manufacturing shed risks charged about four times the usual garnetting rate.

BLENDING AND WILLEYING.

I now pass on to the willey-house processes, in which the materials operated upon are first blended and oiled. The machines here consist usually of a shaker and tenter-hook willey, the former being required for cleaning and opening out the materials before and after blending, as well as for cleaning waste produced in the mill.

The shaking process has not, so far as I can remember, proved in any degree dangerous in itself; but in the following willeying process fires through friction have not been at all uncommon,

notwithstanding the fact that all hard substances are supposed to have been eliminated from the material as far as possible. When pure wool or woollen material only is willied, fires are not frequent, but when materials containing cotton or added cotton are used in the blend, although the originating hazard remains practically the same the contributing hazard is very greatly increased, and the spread of a fire is consequently in proportion to the weight of cotton and oil contained in the blend. Moreover, the presence of cotton is likely to increase the area of a fire by extending it to the willied material thrown out by the machine as well as to the pile of blended material itself. It therefore follows that unless a willey-house fire is promptly extinguished its extension is limited only by the size of the house itself and the quantity of stock contained therein. A large and lofty willey-house is apt to commend itself to the eye of an Insurance official, but when a fire there results in a loss of £500 or more size hazard begins to assume an important aspect. To anyone who has had experience of cotton-mixing rooms in the large modern mills of Lancashire, this special hazard is more appreciated than it perhaps is by others whose experience has been confined to, say, the Leeds district.

In a willey-house, as in any room in which a preparatory process is carried on, the storage of any article that will harbour fly waste is objectionable.

There are still existing non-fireproof storied buildings in which willeying in oiled wool, etc., is carried on, and in such buildings the presence of an oily wood floor or floors increases the contributing hazard considerably.

A model willey-house should be entirely fireproof, of quite moderate size, have a flagged or concrete floor not boarded over, contain machines of iron construction only, and possess a fire-proof chamber with proper fireproof door into which the willied material is blown from the willey, if possible, through a metal spout. I question very much if a willey-house approximating to this description exists, although I have seen an attempt made in the direction of a chamber for the reception of willied material direct from the machine, and not until we recommend and encourage the erection of something like a model willey-house will any appreciable effort in that direction be commenced, and the individual losses in them be reduced.

SCRIBBLING, CARDING, AND CONDENSING.

Hitherto I have dealt only with hazards arising out of processes usually carried on in sheds or fireproof rooms of limited area, and beyond which a fire does not usually extend; but scribbling and carding are processes which, as a rule, are carried on in non-fireproof mills and sheds otherwise occupied for spinning and frequently for subsequent processes also. Consequently fires in such scribbling, etc., rooms, unless quickly put out, are likely to cause considerable loss, and will often lead to the entire destruction of the mill or shed affected. It is therefore desirable that we bear this fact in mind when considering hazards incidental to scribbling and carding.

For the sake of convenience, it is the custom for a woollen spinner to arrange for his willey-house to be in close proximity to his scribbling-room, and whenever possible in a fireproof compartment within the mill. Whether the willey-house adjoins or is in a fireproof compartment within the mill, if there is direct connection between shaft or belt hole between them, the greatest care should be taken to protect such opening as completely as possible. I remember a fire in a fireproof willey-house extend through a belt hole into a scribbling, etc., room and cause a heavy loss in the latter. This was a distinctly avoidable loss.

The material to be scribbled is brought from the willey-house in large sheets skewered up into a bag-like shape, and deposited near the feed-table of each scribbling machine, and there is always the possibility of a live spark arising out of the willeying process being present in the material. For this and other reasons I object to the storage of piles of sheets of material being allowed in any scribbling-room. The originating hazards of scribbling and carding are much the same as in willeying and other preparatory processes, viz., friction through hard substances or matches in the material coming in contact with the feed rollers and other parts of the machine, through spontaneous heating of waste under and about the machine, and from fly waste falling and passing through a gaslight to the machine or floor. Now, the scribbling and carding machines, by their large size and uncovered character, and also by the usual close proximity of one row of machines with another, form in themselves a very dangerous contributing hazard; and from the moment fire ignition occurs in

any such machine, the oily fibrous material passing through and over the surface of the machine acts like a broad train of gunpowder. Especially is this the case when the material contains cotton to any appreciable extent. The waste adhering to the sides of the machines, the heavy oily waste or "fud" beneath the machines, and the light fluffy waste on the floor round about the machines, all assist in the rapid extension of a fire. If a fire is allowed to reach the "fly" attaching to sheets hung between the machines and from them to the wood beams and overhead fixtures (more frequently to be seen in sheds), there is not much hope of confining the fire within a moderate area. It follows, of course, that the hazards of a mill or shed of the kind are, to some extent, in proportion to the number of machines within the room, or in two non-fireproof scribbling, etc., mills communicating, whether the openings between them are protected by fireproof doors or otherwise.

My view of a model scribbling, etc., room is that it should be fireproof, having no wooden floor; the machines so arranged that employees can pass easily between the rows (which is rarely the case), and having no open space large enough to admit of the storage of a pile of stock, parts of machines, or other disused articles on which fly waste would certainly accumulate.

MULE SPINNING.

Scribbling and carding complete the series of hazardous preparatory processes of a woollen mill, and the following process of mule spinning is in itself comparatively non-hazardous. Assuming that proper attention is given to the lubricating of the headstock, spindles, and bearings generally, there is very little danger of friction arising; but where a large percentage of cotton exists in the material worked up, there must of necessity be an appreciable increase in the contributing hazard (especially when the process is carried on in the same room as scribbling and carding), and fires in such spinning rooms are not unknown.

WARP SIZING AND DRYING.

Sizing of both woollen and worsted warps, and drying of same by steam cylinders or by steam pipes, call for no appreciable comment; although the presence of wood partitioning in rooms where these processes are carried on, a common feature, should be noted, as they assist in the spread of fire.

TWISTING, WEAVING, WINDING, AND WARPING.

Twisting of cotton yarn with woollen and worsted yarn is frequently carried on at woollen mills, especially in the Huddersfield district, and, together with winding, warping, and weaving on plain looms, present no special feature of hazard.

The use of Jacquards contributes a hazard not to be ignored when there is a number of them, and where gas lights are used, as there is always danger of the strands of the harness breaking and falling into the lights. I consider the extra rate for them well deserved, and in a room containing rows of Jacquard looms the rapid extension of a fire along the highly inflammable harness to same is always possible.

CLOTH FULLING, MILLING, SCOURING, AND FOR WET RAISING OR GIGGING.

These wet processes are in themselves the least hazardous of woollen mill processes, and call for no remark from that point of view.

TENTER DRYING OF CLOTH.

Tenter drying is done either by steam pipes (the cloth being stretched on long wood frames) or by a drying machine usually enclosed in part by wood partitions, and heated by steam pipes or steam-heated air. When enclosed machines are used, especially, I do not think either the primary or contributing hazards arising out of the process are fully appreciated. These hazards are increased when the drying is done in a non-fireproof storied building. The temperature of the enclosed machine-rooms is usually high, naked gas lights are often used in them, and there is frequently an undue accumulation of flock waste on and about the machine. Except in the case of a modern erection, the woodwork enclosing the drying machines, and the wood floors, where they exist, are exceedingly dry and combustible.

CLOTH DRESSING OR FINISHING.

Cloth brushing, dry raising, cutting, and other dressing or finishing processes, which necessarily give off more or less flock waste, are not hazardous from an originating point of view; but when low-class cloths are treated, in which cotton has been freely used in the processes of manufacture, as well as cotton warps, a fire arising from friction in a machine, or through carelessness in handling matches or gas-lights, may, through the inflammable waste getting alight, rapidly extend and cause a considerable loss. These processes are very frequently carried on in non-fireproof storied buildings, and such cases are deserving of a higher rate than is usually charged.

Having now dealt with the process hazards of woollen mills, I pass on to consider other features of hazard common to these mills.

FLOOR OPENINGS.

Non-fireproof hoists, open or enclosed wood stairs, rope and belt races, and other openings through mill floors are well known contributing hazards, and in any mill containing scribbling and other machinery the usual rapid extension of a fire is rendered still more certain by the current of air passing upwards through such openings, and in such cases very little time is given for the effective use of even the best fire appliances outside automatic sprinklers. Wooden hoists or rope races alone have frequently been the main cause of the total destruction of many buildings, and we are left with the impression that this particular feature of hazard is not properly recognised.

NIGHT WORK.

Night work is a feature which naturally increases fire hazards from every point of view, for it is generally a sure indication of the necessity of an increased production within a given period of time, and frequently of pressure of work within that period. It follows, therefore, that machinery is likely to be run continuously at full speed, thereby greatly increasing the risk of friction hazard from both machinery and shafting. Moreover, constant day and night work admits of no break for the proper cleaning of machinery, shafting and the like fixtures, between Monday morning and Saturday noon following, and although some wealthy firms make special arrangements for daily sweeping and cleaning, others are apt to disregard this necessary attention. In such latter firms' premises especially, the general condition of the preparatory process rooms is certain to be unsatisfactory,

thus increasing the contributing hazard (if a fire should occur) as well as the danger from spontaneous combustion of waste and other oily materials. Another point to be considered is the fact that employees available for night duty are, as a rule, inferior as regards intelligence, ability and general character, to those employed only on day duty. The recent fires at mills in which work for Army requirements is done bear out my remarks, notwithstanding the fact that high-class raw materials only are being used for such work.

TENANCY.

Tenancy in woollen mills where preparatory processes are carried on is a particularly undesirable feature, especially when two or more tenants carry on such processes, for it almost invariably indicates a class of trade below the average, and consequently the use of cheap raw materials (and frequently a fair proportion of cotton or cotton waste) and oils. It also of necessity requires divisional control in the management, and therefore varying conditions of cleanliness in the same mill. As regards the tenants themselves, we may fairly assume their financial position to be, usually, not strong. Even as affecting the mill building, it is only in exceptional cases that the owner of a tenancy mill gives adequate attention to repairs (sometimes very necessary repairs), and general management, both as regards the inside and outside of the building. In such mills, therefore, we may fairly anticipate maximum hazards all round.

COMMISSION WORK.

Commission work is done at many mungo and shoddy mills, waste pulling and yarn spinning mills, and as in most instances the materials worked up are of a mixed character and somewhat inferior quality, such mills when run mainly on commission work may be deemed the least desirable of their class. From every point of view, the primary and contributory hazards are greater than in private concerns, and it is surprising that this fact is not more generally understood and provided against.

OILS.

It has always been difficult to ascertain with any degree of certainty the extent to which the various classes of blending oils have contributed to fires in woollen mills, but it was at one time believed that the cheaper kinds of recovered or manufactured oils were frequently adulterated with mineral oil, and that the rapid extension of fires arising in the scribbling rooms was due to this feature. There was, I think, some ground for that belief at that time, but the means taken to check such adulteration was, I think, more or less successful. It must, of course, always be remembered that the use of even the best oils with the materials worked up is in itself an important contributory hazard in all woollen mills, and when we learn that the percentage in weight of oil so used is on the average equal to about $\frac{1}{10}$ of the weight of the materials themselves (as against 3 per cent. in the case of a worsted mill), we can in some degree realise the effect such a quantity of oil must have in the extension of a fire, particularly when cotton forms part of the material worked up.

It must also not be forgotten that the use of mineral lubricating oils for engine, shafting and machinery is a somewhat serious contributing hazard in any kind of textile mill, and one that is not, I think, fully appreciated. In this respect, however, woollen mills occupy a more favourable position than worsted, cotton, or even Yorkshire silk spinning mills. I find than in the case of a woollen mill the use of lubricating oil in the spinning process is equal to about '20 of a gallon per spindle per year, whereas in a worsted mill it is equal to about '30 per spindle. Moreover, a woollen spinning mill containing, say, 2500 spindles, would hold over 10,000 worsted spindles, so that we may expect the weight of mineral oil for the spindles of a woollen mill not to exceed \frac{1}{5} of that used in a worsted mill, even assuming that the shafting in a woollen mill requires the same quantity of oil as that in a worsted mill. In this connection it is interesting to know that woollen spindles will make from 2000 to 3000 revolutions per minute, according to the quality of materials worked up, whereas the averages in a worsted mill are about 2500 to 3000 for flier spindles and 6000 to 7000 for cap spindles.

MANAGEMENT AND CLEANLINESS.

Good management and cleanliness may be said to go hand in hand, and together form the greatest safeguard against serious fires. It is true they cannot to any great extent prevent process fires, although they do tend to check the contributing risks to same. They certainly prevent many fires that would otherwise arise from heating and lighting, overheating of shafting and machinery, spontaneous combustion, and the extension of fires that do arise from these causes. The regular and systematic removal of all waste each day from preparatory process rooms is a necessity, and no excuse for the non-observance of this rule should be accepted. The removal should be carried out in a comprehensive manner and not confined, so far as the scribbling rooms are concerned, to the floor sweepings and heavy waste or "fud" beneath the machines; but as far as possible the sides of the machines, and all fixtures and fittings, including screens to the gearing, should also be cleared. In no other direction does slackness of management show itself so clearly as in the scribbling and carding room; and in no other mill-room is the hazard from waste in one form or other so serious from almost any point of view as in that room. In carelessly managed mills one may also notice small heaps of floor sweepings in corners of the rooms, under wood stairs, and in the attics. For this and other reasons I view with suspicion the triangular shaped attics which are used only for storing purposes.

STEAM ENGINE AND MAIN DRIVE WITHIN THE MILL.

I have always held that the presence of the engine and main drive within a non-fireproof mill of any kind constitutes a really serious originating hazard, more particularly when the driving is done by vertical ropes, and that the constant presence of grease and oil on and about the engine, shafting, etc., necessarily acts as a contributing hazard. Should any defect develop in any part of the shafting or gearing which is not promptly discovered, or if, after being discovered, a careless engineer or penurious proprietor takes upon himself to run a possible risk of extra friction rather than stop the mill for a time, then the probability of fire resulting is very greatly increased.

It is perhaps too early to say with any degree of certainty whether electrical driving is to be preferred to the present general system, but wherever electrical plant for the same is perfectly satisfactory I am inclined to believe the change would prove very beneficial from a Fire Insurance point of view.

HEATING.

Woollen mills are almost invariably heated by steam pipes, and with the single exception of low pressure hot-water pipes no safer method of heating can be adopted, always provided the pipes are entirely free from close proximity to woodwork or combustible material and kept clear of waste.

LIGHTING.

The use of coal gas for artificial illumination is gradually being superseded by incandescent electric light, and where the installation is properly fitted in accordance with Insurance rules this mode of lighting is to be preferred to any other so far as woollen mills are concerned. It must not, however, be assumed that a lighted electric bulb cannot ignite fly waste or any other combustible article that is allowed to come in contact with it, as I have myself settled small claims for textile goods which were burned in parts through such contact. Naked gas lights are objectionable in any textile mill room, and although incandescent gas lights are now the rule where gas is used, the common practice of dispensing with globes should not be encouraged in the case of vertical lights. The small inverted type with metal reflectors over, is a great improvement upon any kind of vertical gas light, as such a gas light can be used at a safe distance above a machine—even in the case of a scribbling machine.

MORAL HAZARD.

Moral hazard is, I suppose, a fire hazard incidental to woollen mills, although I am not at all sure that it obtains, as a whole, to quite the same extent as in other classes of textile mills in which the raw material worked up is confined to a single kind. I assume the primary cause of this hazard is usually weakness of the moral fibre or principle in a man, and that the main contributing causes are precarious financial position and period of pressure from without consequent upon the increasing difficulty of meeting the usual monthly trade payments. It appears to me that spinners who are limited to a single kind of raw material, from which they can produce very few classes of yarn, are liable to suffer more severely from fluctuation of prices

than those who work up several kinds (and classes of those kinds) of material, and who can also produce various classes of yarn and cloth. The single material spinner may also be more inclined, from force of circumstances, to deal with very few merchants, both as regards buying and selling, than the one who works up a variety of materials and produces a variety of yarn and cloth; the result being large individual indebtedness and credits in the former case, which in times of depression of trade become increasingly oppressive.

I am inclined, moreover, to believe that a millowner who is in the habit of overloading his steam engine, as well as he who persistently allows his mill rooms and machinery to remain in bad condition generally (in the face of warnings of probable dangerous consequences through undue friction, spontaneous combustion of waste and other hazards), may both be deemed to be subjecting their Insurance Companies to a risk very closely akin to moral hazard. If I was asked which class of woollen spinners more than another is more likely to contribute to this special form of hazard, or to that akin thereto, I should venture to suggest those whose work is wholly or mainly upon commission terms.

MISCELLANEOUS HAZARDS.

These include the almost criminal carelessness of electricians, millwrights, plumbers, and other craftsmen doing new and repair work, negligence on the part of employees in their various duties, so called fire bugs and cranks, lightning and other causes known and unknown, the aggregate of which even the best regulated concerns cannot adequately guard against, and which causes a large proportion of the total loss by fire in nearly every class of risk.

SUMMARY AND GENERAL REMARKS.

Summarizing as briefly as possible the most important of the fire hazards incidental to woollen mills, I mention first the miscellaneous character of the added materials worked up, including as they do nearly every description of textile mill waste, most of which contain oil and therefore highly inflammable. Second, the great danger of friction arising out of every

preparatory process by machinery; and third, the unavoidable production and dispersion of light oily fly waste during the said processes, which waste is always liable to accumulate upon floors, fixtures, fittings, etc., of the rooms.

I also again draw your attention to the increased hazard from mills directly communicating, and from scribbling mills and sheds of abnormal size; and although I have noticed in the largest sheds compensations due to good management and proper spacing of the machines, as up-to-date equipment, I consider the remarks made on size hazard by Mr. John Dobson in Manchester last year, in his exposition on paper mills, well deserving your attention. I quite agree with him in his statement that "such hazard is in the future likely to receive more effective consideration than it has in the past."

A little time ago I referred to the fact that there are in the West Riding of Yorkshire about 130 rag-grinding trade risks in addition to the many private grinding rooms attached to woollen mills. There are also about 40 waste pulling and wool extracting mills, about 450 cloth mills (in the large majority of which scribbling and other preparatory processes in oiled material are carried on), and about 100 yarn spinning mills of various kinds, all of which come within the scope of the woollen mills tariff. In all, therefore, there will be about 700 woollen risks, good, bad, and indifferent, in our respective districts, and I should be very greatly interested to know how many or few of these are at present uninsured by reason of their refusal on the part of the Fire Offices themselves. I may say quite frankly that at present I have no evidence of any such declined risks, and I venture to say that if any millowner is unprotected and is anxious to insure, there are not many brokers who would admit their inability to place the business if they are given the opportunity. Now, I am satisfied from personal experience that the general improvement in woollen mills as fire risks has not progressed satisfactorily during the last 25 or 30 years, and there are very many undesirable mills out of the 700 or more existing to-day, and probably a still greater number that do not come up to a reasonable standard of what may be deemed average eligibility. There are not many that can be considered as model risks. I am therefore forced to the conclusion that the present unsatisfactory condition of woollen risks generally is due, first, to the comparative ease with which such risks can be covered by insurance, and, second, to the need of due recognition of desirable and even necessary improved construction of certain rooms and disposition of machinery, etc., within them.

I fully admit that the existing tariff, so far as it goes, represents a genuine effort to rate risks scientifically, and that it has been justified by results, but there remains still plenty of scope for its extension in new directions that will encourage desirable improvements. There is, however, a limit in this direction, and if we wish to attain the best results from any tariff we must first clearly understand that tariff rating is not, and was never intended to be, the hall-mark of eligibility; that such rates are the minimum charges and not the maximum rates for any class of mill, and that we should, therefore, raise our standard of eligibility.

What I really mean is, that we should make the same use of our accumulated knowledge of fire hazards in the selection of risks for acceptance as the Life Assurance Companies do in their selection of lives. In order to illustrate how necessary it is for us to do this, I again remind you of the important bearing good management and cleanliness have in our estimate of the desirability or otherwise of any particular woollen risk, and how the dealing of these and other unsatisfactory features affecting construction and equipment generally can only be dealt with by our mode of selection.

I am quite aware that the suggestion of the raising of our standard of eligibility to the height previously mentioned will be said by many to be quite inexpedient, and by some unnecessary. My answer is this, that the objectors already decline whole classes of risks; and I also say, with all confidence, that I know of no other large class of risks where a sound expert selection is more necessary than in the case of woollen risks. I can also say with equal confidence that such a selection would automatically tend to more and more confine dangerous originating hazards, and also reduce contributing hazards to a considerable extent.

In this direction I do not believe that the Fire Offices fully realise their immense power for good. Through their ability, as a whole, to either grant or refuse insurances at will (always provided such refusal is made upon good and sufficient grounds, and a reasonable way of escape from such refusal given to those affected), united action on their part would gradually lead to

nearly every woollen risk being rendered acceptable, even if judged from a fairly high standard, to any Office accepting the risks as a class, and incidentally result in a material reduction of the present loss ratio. Under present conditions we are apt to confine our recommendations to millowners from the point of view of scoring over our competitors, and I have noticed from a correspondence that is passing through a well-known Insurance periodical that such a limited use of an expert's knowledge is, in the views of some of the correspondents, to be commended.

I hold that such a narrow application of our experience, gained almost entirely from intercourse with our respective policy-holders and our visits to the mills and other premises, is beneath the dignity of such a profession as ours, and is, moreover, a short-sighted policy. It is our duty and privilege to make the widest possible use of our accumulated knowledge of fire hazards in order to prevent unnecessary loss by fire, thus rendering valuable service to our policy-holders and through them to the general public and nation alike. Such service will raise the Insurance Companies in the estimation of the community at large, and increase their confidence in the Fire Offices generally.

It is somewhat remarkable that exactly twenty years ago to-day Mr. J. B. Roberts, when reading his invaluable paper on woollen mills, said: "Millowners have too frequently overlooked or ignored the important questions of safety and economy from an Insurance point of view," and again, "that the responsibility of this state of things rests upon the Insurance Offices themselves." These words, to a large extent, are just as applicable to the Offices to-day as they were twenty years ago, but I sincerely hope that "the day of scientific underwriting based upon common data and experience" (including, as it must necessarily do, proper selection), at that time referred to and dwelt upon by Mr. Roberts, is near at hand; and if by the reading of my paper upon "Fire Hazards Incidental to Woollen Mills" the time can in any way be hastened, I shall feel that my small effort will be duly recompensed.

GENERAL AVERAGE: ITS REFORM OR ABOLITION.

By W. R. RAY, F.F.I.A., Union Insurance Society of Canton.

A Paper read before the Insurance Institute of Victoria, 16th September, 1914.

THE question of the reform of general average has exercised the minds of underwriters and others connected with mercantile marine affairs for a considerable period. Based upon what was an ancient law of the sea, the principle of general average in the course of time has been so widened out in its scope by judicial decisions, that it is impossible to say where its expansion is likely to stop. Dissatisfaction with it is therefore very general, and underwriters of experience are of opinion that it must, ere many years, be crushed out of use by its own ponderous weight. Its reform is far from being merely an academic question, for we have only to become acquainted with the many clear and logical reasons for its amendment, stated first by Lloyd's Committee in 1877, and since then by several other qualified critics on different occasions, to see that it is really a live and practical subject, and worthy of the serious consideration of both underwriters and shipowners.

As a matter of fact, in July, 1890, Mr. W. H. Jarrett, then manager of the Commercial Union Assurance Co. in Melbourne, read a very able address before this Institute on the "Reform of General Average," advocating its abolition. In May, 1894, Mr. Douglas Owen, barrister-at-law, then secretary of the Alliance Marine and General Assurance Co., read a valuable paper at Lloyd's on the same subject, strongly advocating reform by abolishing all allowances for sacrifices, such losses to rest where they fall, and to be paid as direct claims by the underwriters concerned, leaving salvage

and other classes of expenses to which all interests are liable to contribute as general charges, and this was practically the recommendation of Lloyd's Committee in 1877. Then in October last year, Mr. H. K. Fowler, manager of the United States Branch of the Thames and Mersey Marine Insurance Co., in his address in New York to the Association of Average Adjusters of the United States, of which he was chairman, devoted the greater part of it to the question of the "Burden of General Average," supporting the views of both Lloyd's Committee and Mr. Douglas Owen. And now it will be seen from the agenda paper for the Congress of the International Association of Marine Underwriters, to be held on the 16th and 17th of this month at the Hague, that item 8 is on "Reform of General Average." This Congress has no doubt been abandoned owing to the present war. In addition to this, a Draft International Code relating to general average has now been drawn up by the International Law Association for the purpose of obtaining the views of shipowners, merchants, average adjusters, and others interested in the bringing about of international uniformity in this law. No more appropriate marine subject could therefore be discussed at the present moment, as it may be said to have passed from the stage of theory into that of practical suggestion, when it is useful that all views should be brought forward for consideration.

Now, the first written record of this simple ancient law of general average appears to have been made by the Greeks of the little island of Rhodes, situated in the Levant. The Romans adopted it from the statutes of the Rhodians, and in the Digest of Justinian, Book XIV., Tit. 2, headed "On the Rhodian Law respecting Jettison," issued about A.D. 530, the words have been translated thus:—

By the Rhodian law it is provided that when a jettison of goods takes place for the purpose of lightening a ship, that which has been jettisoned on behalf of all is restored by the contribution of all

The above date, however, does not actually fix the period of the origin of the law, which is lost in antiquity. Doubtless the Rhodians, from whom the Romans adopted it, merely included in their laws a maritime custom which, even in that day, was an ancient one among the peoples who carried on the commerce of the Mediterranean, particularly that of the Levant, as the custom is believed to have been in force for more than a thousand years before the Christian era. I do not propose to trace the history of this law from Rome to England, as that will be found very ably treated in the standard work of Mr. Richard Lowndes on "The Law of General Average." It may be said, however, that it has been embodied in English law in the course of a great number of judicial decisions, extending over many years, and in the consideration of which the eminent judges who delivered them laid under contribution the shipping laws of every great maritime nation which had them fashioned in the form of a code. It has been stated that it was included in English jurisprudence at a very early date, for—

In 1285 A.D., Edward I. sent to the Cinque Ports letters patent, declaring what goods were liable to contribution. (Parsons' Law of Shipping, Boston, 1869.)

It is of interest to note that in 1608 the right of claiming contribution from co-adventurers was denied in a case which occurred on the Thames, known as Mouse's case. An action was brought by one named Mouse for a casket and £113 thrown overboard. The facts were that a ferryman at Gravesend took some passengers, one of whom was Mouse, into his barge to pass to London. A violent tempest arose, and the barge being in danger of swamping, some of the passengers threw overboard a hogshead of wine and several other things. It was held that being a case of necessity for saving the lives of the passengers, the defendant being a passenger was justified in casting the casket out of the barge, and plaintiff was non-suited. It was also held that if danger accrued only through act of God, as by tempest, no default being in the ferryman, everyone ought to bear his loss for the safety and life of man. The decision was also against the right of contribution on the sea, but this was superseded by later decisions, which allowed it. So, in the United States, there was a case in 1843 in Michigan, "Rossiter v. Chester '' (1 Doug., Mich. 154). A new steamer, the "Missouri," trading on Lake Huron, was on a voyage from Buffalo to Chicago. A violent storm arose, and goods were jettisoned for safety of the ship, the cargo and the lives on board. It was held that the United States maritime law,

under which the facts would constitute a proper claim for general average contribution, was not in force on the Lakes, and could not be enforced in a Court of Common Law jurisdiction. This was remedied, however, in 1845, when an Act of Congress was passed which, *inter alia*, extended the maritime laws of the United States over the inland lakes and rivers.

The English law of general average, as we have noticed, is based upon and developed from the very ancient Rhodian law, but its more important development may be said to have commenced in 1801. In that year, in the case of "Birkley v. Presgrave," Mr. Justice Lawrence, one of the judges in the case, prefaced his judgment with a statement of the principle of general average, which has since been held as of the highest authority, and it is on this that the law of England has since that day been chiefly constructed. The definition referred to is:—

. All loss which arises in consequence of extraordinary sacrifices made or expenses incurred for the preservation of the ship and cargo comes within general average, and must be borne proportionably by all who are interested.

In the reading of this decision one point which is at once clear is the extreme broadness of its wording, which suggests no limitation to its general application. The difficulties of adjusting claims for general average rest largely on the fact that arbitrary decisions have to be made as to what is, or what is not, a proper general average item in the terms of Mr. Justice Lawrence's very wide interpretation, and some of the highest authorities differ in opinion. How greatly this interpretation extends the more limited terms of the clearly expressed Rhodian law can be seen by comparison, for in the latter only jettison of goods and cutting away of masts are to be contributed for by all the interests which have benefited therefrom. In the former, all loss which arises in consequence of extraordinary sacrifices made, or expenses incurred, comes within general average.

It is of course, obvious that an equitable and beneficent principle is involved in this law of general average, as it distributes amongst many what would be a heavy loss to fall upon one. For many centuries it appears evident that it operated satisfactorily to all concerned in maritime affairs. The nature of the trade of earlier years, the small size of the ships, the

peculiar dangers arising from pirates and warlike peoples in the course of the voyage, necessitating the payment of ransom and safe conduct money, the hugging of the coasts, the travelling of merchants themselves in the ships with their goods, and particularly the absence of a system of Marine Insurance—all this tended to force the shipowners and traders to adopt some simple and equitable principle, easy of application, such as general average, which in effect amounted to a method of Insurance by which the cost of jettison and other extraordinary measures undertaken for the benefit of all should be borne ratably by all. Even in 1801, when the judgment of Mr. Justice Lawrence was delivered, the conditions under which shipping was carried on differed very greatly from those of to-day, for the larger vessels then were as pigmies compared with those of our time. They were all sailing vessels of small carrying capacity, the largest of which were not more than a few hundred tons burden; whereas now there are mammoth steamer liners of 45,000, and even 50,000 tons register, and carriers of 20,000 tons and over of cargo, veritable floating warehouses. The difference in value is equally great, as it is also with the number of cargo owners interested in the venture. For instance, the value of the cargo of many of the large liners reaches £200,000, while some of them run into much larger figures; and the number of bills of lading occasionally exceeds 3000. A few figures will emphasise the somewhat important point of the immense growth of trade since the year 1800. In 1800 the total foreign trade of the United Kingdom was £67,300,000, and the tonnage of the shipping engaged in it, all sailing vessels, was under 4,000,000 tons.

Year.				Total Imports and Exports, all Interests. \mathfrak{L}	Total Shipping Tonnage. Tons.
1873		-	-	744,790,653	44,439,986
1877	-	-	-	723,729,120	51,531,077
1901	-	-	-	928,086,874	*96,679,894
1912	-	-	-	1,477,940,434	†152,457,045
		* Steam	1, 89,	355,080; sail, 7,324,8	14.

In the year 1912 there were 134,118 steamers, and 12,006 sailing vessels engaged in this colossal foreign and Colonial carrying trade, which means that in that year over 400 vessels

† Steam, 148,539,819; sail, 3,917,226.

entered into and cleared out from the ports of the United Kingdom every day. An interesting point which may be noticed, by the way, is the passing of the sailing ship, as the figures for 1912 show that for every ton carried by them, there were thirty-seven carried by steamer, indicating how much the sailer has been superseded by the steamer.

Now, general average was a useful, equitable, and easily-applied custom in the earlier part of the nineteenth century, but as commerce developed and vessels increased in size, it gradually became more and more unwieldy, inconvenient, and costly, and its survival in this twentieth century seems to me an anachronism, and not in keeping with the simpler and more economic spirit of the time.

At this point of our inquiry let us see if in the great business of contracts relating to matters ashore there exist anything analogous to the maritime law of general average. This right to claim a contribution from others by reason of the sacrifice of something for the common safety, appears, however, to be purely a maritime one, and so far as I am aware there is nothing like it sanctioned by either custom or law to-day in connection with land contracts. We are justified in seeking an analogy in the common law of the land, for an eminent jurist has stated that while—

Marine general average is, strictly speaking, only a part of maritime law, we should also insist that maritime law, or the law merchant (a phrase sometimes used as synonymous with maritime law) is itself a part of the common law. (Parsons' Law of Shipping, Boston, 1869.)

This same authority refers to a case in Massachusetts, United States, where the principle of general average was applied to a fire loss, and it will no doubt be of special interest to Fire Underwriters. The case was Welles v. Boston Insurance Company, the date is not given, but it was probably about 1850:—

An insurance against fire was made on stock-in-trade contained in a store. A fire happening in the neighbourhood, the insured with the consent of the insurer, procured blankets and spread them on the outside of the store, whereby the building and its contents were preserved, but the blankets were rendered worthless. The plaintiffs paid for them, and demanded from the defendants an entire indemnity. The

defendants refused to pay the whole of the loss, on the ground that they were not included in the policy, but offered to contribute in proportion to the interest which the parties respectively had at risk. It was held that the loss was not covered by the policy, but that the insurer and insured should contribute to it in proportion to the amount which they respectively had at risk in the store and its contents. The Court said: "The plaintiffs can claim then only on the ground of a sacrifice made by them for the preservation of the property endangered by the fire, and for a proportion of which sacrifice they are equitably, if not legally, entitled to recover. They contend, however that this is not a case proper for contribution, it being customary, on Fire policies, to pay the whole loss. We believe the practice to be as stated, but as the present claim is not within the contract, it certainly is reasonable that the plaintiffs should bear a proportion of the sacrifice made for the common benefit. This decision does not call in question the general principle, that a loss under a policy against fire is to be paid without contribution."

This case also decided that other buildings in the neighbourhood, which would have been endangered if the store had taken fire, were too remotely affected to be liable to contribution. One American authority, Chancellor Kent, speaking of the adjustment of losses by fire, and referring to this Massachusetts case, said:—

So there may be a general average for a sacrifice made by the insured for the common good in a case of necessity. It is analogous to the law of contribution by co-securities.

Evidently in adjusting losses arising by fire this rule of general average has not been accepted as practicable or expedient by Fire Underwriters, though in certain circumstances which may arise during a serious conflagration it seems quite logical and equitable that the principle should be applied on land as well as on the sea.

In this State, under the Fire Brigades Act, 1890, the authorised officers of the Metropolitan and Country Fire Brigades Boards have very full powers to pull down and otherwise destroy houses, buildings, and tenements for the purpose of extinguishing or preventing the spread of fire. In the general provisions of this Act such damage to property is made a direct charge on a Fire policy. Section 56 reads:—

Any damage caused by the chief officer or the deputy or assistant chief officer or by any member of any brigade or by

any brigade in the lawful execution of any power conferred by this Act shall be deemed to be damage by fire within the meaning of any policy of insurance against fire covering the property so damaged notwithstanding any clause or condition to the contrary in any such policy.

In a conflagration, then, if the fire brigade destroy a number of buildings to prevent the further spread of the fire, the loss so occasioned—although the buildings may not have been actually on fire, but have been destroyed by pulling down or by explosion—is a claim on a Fire policy, without any right of contribution from others who benefited by the sacrifice. This is the law here and in England. I think that Fire Companies are to be congratulated upon the fact that the principle of general average has never been applied any further to fire losses than the Massachusetts case, and that when a fire loss occurs they know exactly where they stand with regard to it within a reasonable time afterwards. Thus, long delays and heavy cost of adjustment are avoided, and there is no hair-splitting division of the fire and water and smoke damages, as they are all dealt with as they should be, viz., as part and parcel of the one fire loss.

It was in 1873 that again the Courts considerably widened the scope of the law when they decided, in the case of Stewart v. West India & Pacific S.N. Co., that damage caused by extinguishing a fire must be made good as general average. This decision opened the door to admit a large toll of damages, and it is a fact that any item that can, on the slenderest grounds, be squeezed in as a voluntary sacrifice, is made the occasion for an expensive general average adjustment. Fire is one of the most fertile sources of claims in general average. The extent to which it contributes to losses will be seen from the fact that in 1913, from January to October, in the trades between Great Britain and Australia, United States, Continent, and Japan, eighteen steamers had been on fire, and the estimate of the losses, according to "Fairplay," is £1,008,000. A very substantial proportion of that sum will be admissible as general average, owing to the large amount of damage caused by water used to put out the fires.

Now in 1877, after four years of experience of the operation of the new interpretation, which allowed as general average water and other damage to goods and ship in extinguishing fire, Lloyd's Committee was invited to send representatives to attend a meeting of the Association for the Reform and Codification of the Law of Nations at Antwerp. The Committee appointed representatives, but sent with them a letter signed by Mr. (afterwards Lord) Goschen, as chairman of Lloyd's, deprecating any extension of general average, and containing this remarkable sentence:—

There is a strong feeling in this Committee that the differences which exist in various countries upon this subject would be best met by abolishing general average altogether.

On the return of the delegates a Sub-Committee was appointed to consider their communications. The Sub-Committee drew up a report, and this report, signed by the secretary of Lloyd's, by order, after recapitulating the facts, proceeds as follows:—

All those engaged in Insurance business, insurers as well as insured, must be aware of the great inconvenience of the present system. The alteration of the law as regards jettison (as ruled in the case of Dickenson v. Jardine), and the new practice of treating as general average fire on board a vessel in place of the old custom of allowing each interest to bear its own peril, have given rise, with other modern readings, to so vast and complicated a system of general average that, by the consequent expense and delay, it has become almost intolerable. Other great inconveniences also constantly ensue. charges of every person directly or indirectly connected with the claim, the varying theories of those employed to adjust them, the powers claimed to alter or construe the law, all point to a change which the Committee have long thought desirbale, and which it seemed to them they might shadow out at the meeting to be held at Antwerp.

The Committee consider, then, that any change in the law or practice should be distinctly in the sense of contracting the theory of general average as against the recent suggestions, which have uniformly been in the direction of extending it. They would even affirm as a principle that every interest should bear its own particular peril, and that general average should if possible be abandoned; and in these days, when nearly every interest is insured, the question would resolve itself into one of, not an increase, but an adjustment of premium. It would, of course, be borne in mind that salvage and other classes of expenses to which all interests are liable to contribute are general charges and not general average. The Committee are of opinion that if the present desire to increase the area of general average is permitted to continue it will lead

to great abuse, even to fraud, and their representatives at Antwerp were urged to advocate a return to the simple rules of the original law, "the sacrifice for safety," even if they could not get a hearing for the larger views of the Committee.

It was thus that, seeing the York Rules were to be made the basis of discussion, and that little hope was held out of any relaxation of those rules, the Committee (while in no way fettering the free action of their representatives) charged them with a letter, which may be considered as a protest against any extension of the foreign theory of general average. This extension they have always considered very objectionable, and it has failed to obtain approval in either English jurisdiction or in rules of business.

Mr. Douglas Owen, to whose paper, read at Lloyd's on May 9th, 1894, I am indebted for the above information, in commenting on it, said:—

So vast and complicated a system of general average that it has become almost intolerable. If this was true some twenty years ago, what is to be said of it to-day? What was merely vast and complicated then has become stupendous and compound-comminuted to-day.

Mr. Owens spoke in 1894. If the expense, delay, and complication of the system could be described in such strong terms then, what words can be used now, twenty years later, seeing that the difficulties and inconvenience of the system have been multiplied so greatly by the enormous growth of British trade, which more than doubled itself between 1877 and 1912?

So much has been said of the equity of the principle underlying the law that it will be well to examine its incidence a little closely. Now there are many cases which show that its application to-day is unfair, and makes it an unequal burden on some of the interests associated together. The case of the "Essex" was referred to in Mr. Owen's paper as an illustration. The steamer was scuttled at Port-Said in 1888 in order to extinguish fire, and the adjustment was completed in April, 1891. Roughly, three-fifths of the cargo, say £90,000, consisted of silver lead, the remainder being wool, &c. The lead was undamageable, but the underwriters had to pay a claim of some 20 per cent. for damage caused to the other and more perishable cargo, which was itself the cause of the fire. Well may it be asked, therefore, if it is equitable that such interests as gold, silver, copper, lead, tin, and other commodities not

likely to damage by water, used to put out fire, should contribute to the damage of wool and other interests which are so susceptible to damage and destruction? When we consider perishable products, such as frozen meat, the point is still more accentuated. The "Surrey," from Australian ports to London, was on fire at Melbourne, 15th October, 1909, and the average statement was issued 26th May, 1911. The allowances in general average for loss and damage arising out of the means used to extinguish the fire, amounted to £14,730, and of this, £11.201 was allowed for loss to frozen meat and rabbits. On the frozen beef, which constituted the largest part of the allowance, 85 per cent. was allowed as general average for water damage. These instances show clearly that, while with a commerce of very moderate proportions freighted by vessels of very small carrying capacity, the principle worked very well; it does not and cannot work equitably or satisfactorily with a colossal oversea commerce conducted mostly by huge vessels, carrying enormous cargoes of heterogeneous goods, perishable and otherwise, and differing considerably in value between very wide limits. The equity of the law fails therefore in such cases as these. It could, indeed, only be accurately applied if the goods were all liable to about the same extent of damage by the water or other means used to put out the fire, and this, as we know, is very far from being the fact.

The objection that the abolition of allowance for general average sacrifices would press hardly upon the uninsured owner of ship or of goods has already been sufficiently answered by other writers, and I think you will agree that if an owner is quite satisfied to run his own risk of total loss of ship or on goods, he does not need our sympathy if he should have to meet a much smaller class of loss such as general average.

If it should happen that his goods are jettisoned or damaged in extinguishing fire, then by the law of average his loss will be balanced in time, as he is bound to escape such losses on many occasions, and would be always free from the liability to contribute to the similar losses of others.

To come now to the heavy cost of adjusting general average, it may be said that the anticipations of underwriters that it would substantially increase with the growth of commerce have been fully realised.

In 1890--

Mr. W. H. Jarrett, in his paper of 1890, stated that he had examined fifty-eight statements (English and Colonial) taken at random, and that the total general average charges were £147,184, adjusters' fees £9127—about 6 per cent. examined thirty-five statements, eighteen English and seventeen Colonial, also taken at random, and dating from 1895 to 1913. The total general average amounted to £205,568. In that sum is included adjusters' fees £22,748, equal to 11.1 per cent. The adjusters' fees and agency charges, with printing, totalled £38,302, so that of the total general average of £205,568, the large percentage of 18.6 was eaten up by the cost of adjusting the average. Mr. H. K. Fowler, the general manager of the Thames & Mersey Marine Insurance Company, in his address before referred to, stated that as a result of his analysis of twelve statements, wherein the general average had been almost wholly made up of sacrifices, the cost of adjustment was found to be 18 per cent. of the entire general average, and the outcome of my own examination fully confirms this. It is well to remember that this heavy cost would be nearly all saved if general average were abolished.

It will therefore be seen by comparison that in the development of trade since 1890 general average and the cost of its stating have also grown, but out of proportion.

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Fifty-eight statements, total general average, - - - - - £156,311

Of which adjusting fees were - 9,127 = 6 %

In 1914—

Thirty-five statements, total general average, - - - - £205,568
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Mr. Jarrett also supplied the figures in four individual instances, showing the proportion of the adjusters' fees to be 12, 14, 20, and 22 per cent. respectively of the general average charges.

22,748 = 11.1 %

Of which adjusting fees were -

Here is a selection of seven individual cases, one taken from each of the years 1907-13, which show conclusively the increase of the cost of adjusting, viz.:—

Total C	denera	l Average.	Adjusters' Fees.					
1907	-	£12,158	£1,733	=	14.3%			
1908	-	2,550	546	=	21.4%			
1909	-	3,008	473	=	15.7%			
1910	-1	35,580	3,675	=	10.3%			
1911	-	3,686	1,050	=	28.5%			
1912	-	2,214	499	=	23.5%			
1913		4.912	1,050	=	21.4%			

The following rather unique case was that of a sailing ship from New York to an Australian port in 1902, and there were features about it which clearly illustrate the objections to general average. The general average and charges amounted to £302, which were made up as follows:—

Allowances for jett	ison,	-	-	-	-	£71
Survey fees, printing		-	-	-	-	78
Agency fees, -	•	-	-	-	-	54
Adjusters' fees,	-	-	-	-	-	99
						£302

It cost £231 for surveying, agency fees, including collection of deposits, and for adjusting the general average sacrifices by jettison of £71. The share of the cargo of the £302 was £165, and there were general average deposits collected amounting to £527; of this amount, £362 was refunded eleven months after to consignees of the cargo or their underwriters. The adjusting fee represented 32.7 per cent. of the total general average. The vessel was valued at £22,000, and the freight was £5394, while the cargo was valued at £33,130. Comments would seem unnecessary in this case, the figures themselves revealing sufficiently the gross inequality and burden of such an application of the principle of general average. I would like to say here that in dealing with the cost of adjusting I am not criticising adjusters nor the fairness of their charges, for I know that their work in the preparation of these complicated statements is undoubtedly responsible and onerous, demanding great accuracy and considerable ability and legal knowledge. My objection, and that of many other underwriters, is to the almost unlimited scope of the system of general average as practised in the present day. It is unjustly burdensome, extremely inconvenient, and excessively costly, and full of long delays. It bristles with intricate points, which very often even a legal mind can only doubtfully settle. Niceties of logic and refinements of argument, more creditable to ingenuity than common sense, are

constantly used, very difficult for the man of business to follow, in order to bring all sorts of losses and expenses within its scope, and the kind of rhetoric employed would bring joy to the hearts of the casuists and players with words and phrases of the ancient Roman forum.

With regard to the long delays in the preparation of the statements, the heavy cost of adjustment, and the expediency and economy of having them made up at port of destination these points were taken up some years ago by the Dunedin Chamber of Commerce, and a report of the quarterly meeting of the Chamber held on the 10th December, 1902, at which these matters were discussed. will be found "Australasian Insurance and Banking Record" for January, 1903. A comparative table included in the report of the subcommittee, which was submitted to the meeting, dealt with the delay and cost of statements drawn up in London and in New Zealand respectively. No selection, it is stated, was made, but the first ten of each class that came to hand were examined, and the table is here reproduced:-

STATEMENTS PREPARED IN LONDON.

Vessel.				Arrival at		ate of	Tinvo	Cost		
-			Desti	madon."			Years.	Days.	Stating.	
т .			D	20 1000	-	10 1000		0.4	£	
Ionic, -	-		Dec.	23, 1899	Jan.	16, 1893	3	24	926	
Ruahine	-	-	April	9, 1893		30, 1896	3	174	2837	
Canterbury,	-	- 1	March	2, 1898	Jan.	19, 1900	1	323	173	
Waikato, -	-	- 1	Nov.	25, 1899	June	10, 1902	2	197	657	
South Esk,	-	- 1	Jan.	28, 1899	May	1, 1900	1	99	156	
Kaikoura,	_	-	March	7, 1894	May	28, 1896	2	84	2016	
J. Readman,	_		Jan.	13, 1894	Feb.	13, 1895	1	31	265	
Rangatira,	-	-	Sept.	12, 1897	April	20, 1899	1	220	1131	
Matatua, -		-		t 7, 1900		12, 1901		339	937	
Star of New Ze	ala			1, 1899		30, 1901	2	274	1131	

STATEMENTS PREPARED IN NEW ZEALAND.

Tekoa,	_		- }	April	21,	1898	Jan.	24,	1899		78	140
Ruahine,				March				13,	1897		258	214
Dilpussun	d,	-	- /	April	4,	1896	Nov.	25,	1896		235	57
Matatua,	-	-	-	March	19,	1898	Oct.	4,	1898		199	140
Soukar,	-	-	-	Jan.	21,	1899	May	3,	1899		102	80
Tekoa,	-	-	-	Nov.	26,	1897	Oct.	26,	1898	_	334	374
Ruapehu,	-	-	-	Jan.	14,	1897	May	29,	1897		74	337
Turakina		-	-	Nov.	6,	1898	March	20,	1899		134	17
Waikato,	-	-	-1	May	30,	1896	Oct.	28,	1896		151	143
Rimutaka	,	-	-	Oct.	11,	1895	March	13,	1896	-	153	165

^{*} Or of casualty in port.

The report of the Sub-Committee further stated that:-

While it is freely admitted that the larger amounts involved, and the greater number of bills of lading in the English-prepared statements entail more work, still they do not, in the opinion of your Committee, warrant the great delay in their publication. In addition, it appears to your Committee that the general expenses allowed in statements prepared in London are much higher than in cases where the whole work is done in the Colony.

It would have been more interesting and valuable if the total amount of the general average had also been given in each case, as the percentage of the charges could then have been compared. However, enough is given to show that there is undoubtedly much greater delay when statements are prepared on the other side of the world instead of at the port of destination, where most of the necessary particulars are readily available, and that the considerable difference in cost in favour of the statements adjusted in New Zealand is not fully accounted for by the greater number of bills of lading attaching to the English-prepared statements. The Dunedin Chamber, as a result of the report of the Sub-Committee, unanimously passed a resolution recommending importers to use their influence to have all statements connected with inward vessels prepared in New Zealand. In reply to an inquiry addressed to the secretary of the Dunedin Chamber in July last, I was informed that there is little prospect of any change in the direction recommended. The same delay occurs in the preparation of the statements, and shipowners continue to send the adjustments to London. The question of the preparation of these adjustments at port of destination in Australia instead of in England or on the Continent was taken up by the Associated Chambers of Commerce of the Commonwealth of Australia in 1907 and 1908, and every effort was made to incorporate a provision in the Navigation Bill of 1913 to alter the present practice, but without success, as the Government considered the matter was outside the scheme of the bill. The delay still continues; and, moreover, with regard to German vessels, the statements are prepared in Germany, and in the language of that country. When, therefore, Australian underwriters receive copies of, or extracts from, such statements, they are practically of little use for supplying information or for

the checking of items. The long delays in completing general average statements are now recognised features of the system, and in many cases over three years are occupied in their compilation.

In this respect, here is a recent case which will illustrate the possibilities of delay and inconvenience through a dispute between the shipowner and his agents, and as an instance of long deferred settlement is very hard to beat. A sailing vessel left one of the Guano Islands in 1905 for New Zealand. She had to call at Auckland, being short of stores. Soon after leaving there for her port of destination in the South Island, she met very rough weather, and had to return to repair purely ship damage. The cargo had to be discharged and was afterwards reloaded, and she sailed again and arrived safely at her destination. A deposit on account of general average was collected from underwriters of cargo, which, fortunately, was placed to a trust account. Owing to the dispute between the shipowner and his agents in New Zealand, the necessary particulars were not supplied to an adjuster at the time by the captain, and the matter was hung up for some years. Finally the underwriter, insisting upon the production of a general average statement, had to set about himself to collect a lot of information to forward to the adjuster on matters which the shipowner or his agents should have attended to years before. Only now is this long outstanding case likely to be finally settled, over eight years after the date of collection of the general average deposit.

I have referred to the niceties of argument used to drag in all sorts of items into general average, so let me illustrate it with a recent case. I have had a general average statement before me this year, and the following were the facts stated therein to justify the inclusion of the items. The steamer arrived at an Australian port, and was going bow in, and she went slow astern, and the man on the wharf let go line, which went round the propeller. Ship had to go astern to prevent her going through head of wharf. Pitch dark at the time, and watchman who took the rope was unable to haul it in. The cost of the diver and his assistant to clear the rope from the propeller was charged to general average. Another case even less justifiable is as follows:—A steamer on an interstate voyage carelessly dumped overboard, amongst other rubbish,

a piece of old wire rope, and this fouled the propeller by winding around it. She called in at one port *en route*, but did not remove the rope until her destination was reached, showing clearly that the steamer was never in any danger. The cost of diver and his assistants in removing the rope from the propeller at destination was charged to general average. Where the general average acts come in in these cases it is impossible to see, especially in view of the following judicial statement bearing upon such a point. In 1870, in the case of "Walthew v. Mavrojani," Lord (then Mr. Justice) Hannen made this statement of principle:—

The proposition that general average includes all extraordinary expenses incurred for the purpose of continuing the voyage is not warranted by the principle which governs contribution to general average.

And in a much more recent case, the "Peshawur," Hamel & Horley v. The Peninsular & Oriental Steam Navigation Company, tried before Lord Alverstone, C.J., in the High Court of Justice, England, April, 1908, the following important ruling was given in the course of the judgment:—

To constitute a claim in general average there must at some time or other have been a general average act and so intimately connected with it that one can treat the whole thing as one continuous act, necessary to relieve the whole venture from the common peril. If the consequence of the peril of the sea is merely to render the ship unable to fulfill her contract, or the cargo unfit to be carried on, as, for instance, where it was damaged by wetting, acts done either to make the ship fit to fulfill her contract, or the cargo fit to be carried on, are not sufficient to establish a general average sacrifice.

This "Peshawur" case is so very much to the point, and the judgment such an important one, that I give further facts from it. The steamer loaded at Antwerp for Shanghai, and there were some cases of glass on board. She was caught by the tide just after leaving and let go her anchor. The anchor did not hold, and the vessel started her engines and grounded by the stern on left side of the river. She came off the bank and had to go astern to avoid some craft, and in consequence ran astern across the river on to the quay, whence she had come. The contact caused damage to steering gear, engine, rudderpost, sternpost, and port propeller. The afterpeak filled with water, and pumps had to be used to pump out

tunnel-well. The vessel returned to her berth, where half the cargo was discharged. Five days later the steamer was taken lower down the river, and the other half of her cargo was discharged. All the cargo was transhipped into another steamer belonging to the same company, and carried on to Shanghai. The "Peshawur" went into dry dock for repair. The lost anchor was recovered. On arrival at Shanghai the glass was found to be damaged in excess of what is generally sustained on a sea voyage, and this was caused by the discharge from the "Peshawur" and loading on to the other vessel. Evidence was called to prove that average adjusters' practice was that where a vessel had to put in by reason of a particular average loss, and that in order that the vessel might be repaired cargo had to be discharged, damage caused by such discharge was treated as a general average act. The plaintiffs claimed for the damage to their glass. Nothwithstanding the facts as above stated, Lord Alverstone, C.J., said:

I think it right to say that I do not consider it a case of going back to a port of refuge. I think that from the time the vessel left the quay until her sternpost ran against the same quay at the end of the attempted manœuvre, the vessel was being navigated upon her voyage, or with a view to her voyage, and was incurring perils of navigation, and that the only thing that could be said was that by perils of navigation the ship got into a damaged condition, whereby she was not able to go on her voyage and fulfil her contract. In my opinion there was no general average act before the vessel was damaged by striking the quay. The slipping of the anchor was, to some extent, relied upon, but was not a general average act. That was not a sacrifice, but an ordinary measure taken in navigation to avoid danger. Further, the anchor was recovered. It was then said that even although there was a particular average injury, the ship could not continue her voyage; and as her cargo had to be discharged to allow of the ship being repaired, there was a general average sacrifice in the unloading of the cargo to enable her to be repaired. It was said also that the condition of things was such that the whole venture was in peril. I come to the conclusion, and find as a fact, that when the vessel got alongside the quay with the after-peak full of water, there was no common peril to the ship and cargo. It is perfectly true that if the bulkheads had broken down water might have got into the ship; and it is perfectly true that the pumps had to be kept going to keep the water out of the tunnel, but that is one of the perils of the navigation which necessitated the ship being worked in a certain way, and does not create a basis for a

general average claim. . . . I hold and find as a fact that the danger which had to be guarded against was a peril of navigation which required the ship to keep the pumps going, and do whatever else might be necessary to prevent further damage to the ship and cargo. I think it is analogous to what would have occurred if a rent had been made in the side of the ship by collision.

In the Australian cases previously cited, there was no general average act, as it was the steamer's duty to clear the rope from the propeller, so as to avoid an ordinary peril of navigation. We can see from the Australian cases that, if a vessel take only the very ordinary precautions of seamanship to avoid sea perils, their cost on one pretext or another will be included in general average, if underwriters do not strongly protest. I have quoted at length from the "Peshawur" judgment as, besides limiting very rightly the application of general average contribution to cases where there has been a general average act, there is also another important feature about it. Although the steamer put back to her loading berth after receiving what we call particular average damage, and had to discharge the whole of her cargo to repair, her after-peak being full of water, yet the decision is that the return to berth did not constitute the loading port a port of refuge, and that there was no general average act, either in the slipping of the anchor or in the discharging of the cargo; therefore, the cost of the unloading was not a claim on the general average. This decision has been noticed by the Association of Average Adjusters, and in the address of the chairman, Mr. J. B. Wallace, to the annual meeting in May, 1908, he pointed out that:

It is clear that in future the question whether the cost of discharging cargo in consequence of an accident at a port of loading or at a port of refuge is general average, must be determined with reference to the tests stated by the Lord Chief Justice . . . but with reference to the ruling regarding the return to the loading berth after the vessel had sailed, this may affect the practice of the members of the Association.

It is satisfactory to find that such a decided check has been established to the extension of general average along this particular direction, and it is to be hoped that adjusters will give full effect to it.

Quite a long list of items are now allowed as general average

sacrifices and expenditure, some of which are comparatively recent additions, but it would take up too much time to discuss them. A few of the items, however, are deserving of attention. I think the question may fairly be asked, why should damage by water used to extinguish fire be allowed in general average, and contribution demanded from all the interests on board? We have noticed before that this is not the practice in Fire business. Let me refer to a case in 1815, quoted by Mr. R. Lowndes, in his work on "The Law of General Average." The ship "Hibernia," on a voyage to St. Thomas, was attacked by a privateer. She resisted, and after a severe engagement the privateer was beaten off, and the "Hibernia" delivered her cargo safely to the consignees. A claim as general average was made for damage to hull and rigging, for gunpowder and shot expended, and for cost of curing the seamen's wounds. The Court held that, though done voluntarily, for the preservation of all, these items were not the subject of general average. The case was taken to the Full Court, but this decision was upheld. Gibbs, C.J., said:-

The measure of resisting the privateer was for the general benefit, but it was part of the adventure. No particular part of the property was voluntarily sacrificed for the protection of the rest. The losses fell where the fortune of war cast them, and there it seems to me they ought to rest.

Now fire is one of the ordinary hazards of marine adventure, and when it occurs, it seems to me an extraordinary stretch of the imagination to consider the water damage as separate from the fire damage, and to treat it as a sacrifice. As Gibbs, C.J., said in the "Hibernia" case, the losses fell where the fortune of war cast them (in this case the hazard of fire), and there they ought to rest, for water damage is inseparable from a fire loss. Another objection to admitting water damage is the difficulty of making a fair or accurate division of the fire and water damages. A rule of practice of the Association of Average Adjusters states that if the packages be themselves on fire at the time the water was thrown upon them, they shall not be themselves the subject of general average. A package may have been on fire and only the corner charred, and the contents have escaped fire damage; yet though the contents may be utterly valueless from the water damage, no allowance will be made because the corner of the package has been on fire.

Another set of items is generally allowed for, to which strong objection has often been made by underwriters, viz., jury-rig, damage to engines in working a steamer off a strand, and coals and other stores used in the course of such working. Jury-rig is generally made up from the spare spars put on board as a special provision in case of accident, and is intended for use if required with the other materials of the ship.

If it should be destroyed in being used for the purpose for which it is on board, why should it be allowed for as general average? The engines are put into a vessel to propel her under all circumstances where they are necssarily of use. Why should they not be worked to their utmost in a stranding, a very common peril of the sea, to get the vessel off, without the damage being allowed for? This item should be a claim on the hull policy, not on general average. For what else is the vessel provided with the machinery but for use in every contingency where its driving power can be utilised to the advantage and safety of the vessel in all situations?

Mr. W. Gow, in his work on "Marine Insurance," refers to the fact that American underwriters of cargo in English steamers have refused to admit liability for their proportion of the amounts charged in general average for damage done to engines in working a steamer off a strand. It is a very doubtful charge, for it is exceedingly difficult in most cases to see where the actual intentional sacrifice comes in. If it is doubtful to include such damages to engines, then it is certainly much more open to question when the coals and other stores consumed in such an operation are allowed for. Coals and stores are provided for the very purpose for which they are used, and should not be the subject of general average in a stranding. Mr. Lowndes, in his work before referred to, commenting on the views of some writers who had questioned the decision in the "Hibernia" case, says in supporting it:—

It is, however, not so easy to resist the argument from analogy with carrying a press of sail. If a ship sails on her voyage provided with guns and ammunition sufficient to resist an enemy, these are provided for that purpose and no other; and the use or expenditure of them, more or less, for their appropriate purpose cannot be regarded as the subject of general average. The ship's being so equipped, again, is surely a notice to the crew that they are hired to fight in case of need and not merely to navigate the ship.

Mr. Lowndes is reasoning by analogy from the fact that, if a ship carries a press of sail in order to escape from an enemy, though it is done for the preservation of all, it has been held that a loss arising from a hazard so incurred is not the subject of general average. Might it not be inferred here also by analogy that, in the case of loss of jury-rig, damage to engines, and coals and stores consumed in working a steamer off a strand, as such losses or damages occurred in the course of their use in operations for which they were provided they are not proper subjects of general average?

With regard to the wages and maintenance of the crew at a port of refuge, the cost is admitted under the York-Antwerp Rules, but is not allowed in English practice. Underwriters, however, have been forced to acquiesce in the use of a clause in policies agreeing to the average being made up in consonance with those rules, if in accordance with the contract of affreight-The admission of this expense is unfavourably viewed by the majority of underwriters, as it is regarded as part of the freight paid by the cargo owner. The expense is due to the prolongation of the voyage, and is one of the risks of navigation that may fairly be considered to be included in the rate of the freight. If it is a fair charge in general average, then there arises the question, Why is the cargo owner not allowed loss of interest and loss of market? As a matter of fact, in the "Edenbridge" case, 1899, loss of market on live stock was allowed as general average. The steamer was on a voyage from River Plate to Deptford, England, and was not to call at any Brazilian or Continental ports before landing the live stock, as under the Diseases of Animals Act in the United Kingdom foreign animals cannot be landed if the vessel conveying them touches at a Brazilian or Continental port. The steamer sprung a leak after leaving Buenos Aires, and was forced to put into Bahia, a Brazilian port, to repair. Afterwards the live stock had to be taken to Antwerp, and were sold there at a loss on the English prices, and this loss was allowed as general average. With this as a precedent, perhaps the loss of market on cargo may also be ultimately allowed. The cost of cargo and the steamer's materials burnt as fuel, sometimes allowed in general average, require always very careful checking, as the shipowner is expected to provide sufficient coals for the voyage. It is an extremely doubtful and unsatisfactory item, for a

steamer should always carry enough fuel to see her safely to destination, and the contingencies of delay through perils of navigation should undoubtedly be fully provided for.

Like the proverbial snowball, which is said to increase in bulk as it rolls down hill, so does general average, as the years roll on, still increase in stature. Loss of passengers' baggage is an item now admitted, and in the "Mongolia" case, in 1910, the allowances for it reached the respectable total of £7614.

Many other points are difficult to understand. For instance, chartered voyage freight to be earned is compelled to contribute to general average sacrifices and expenses, though the vessel may be only in ballast when the accident occurs. A vessel was chartered to go out from England (the "Nestor," 1902) to Savannah, and there load cotton for Liverpool. She was in ballast, and when going into Savannah ran on a sandbank, necessitating general average sacrifice causing damage to machinery and propeller. Although the goods were not on board at the time of the casualty, it was held that the chartered freight must contribute to the general average. The United States law does not make chartered voyage freight a contributory in such a case as this, as the freight on the voyage back, when the goods are on board, is considered too remote from the casualty, and this appears to me the sounder view.

Now, should reform be considered on the lines of the suggestion of Lloyd's Committee, which has been supported by others, viz., that all allowances for general average sacrifices be abolished, the question arises whether any adjustment of premium would be necessary. From interesting calculations made by Messrs. Owen and Fowler, based upon the figures of their Companies for the three-year periods, 1889-1891, and 1910-12 respectively, it would appear that settlements for general average claims bear such a small proportion to the total settlements of all claims that the underwriters could accept the reform with but little, if any, increase in premium. For instance, for the three-year period, 1889-1891, for one Company, of the total claims paid, the settlements for general average averaged only 8½ per cent., while those for the 1910-12 period of the other Company averaged 12½ per cent. This means that out of every £100 paid away in claims of all kinds, £91 10s, in one case, and £87 10s. in the other, were for claims

other than general average, and only £8 10s. and £12 10s. respectivley for general average. The difference between the 8½ per cent. and the 12½ per cent., viz., 4 per cent., is fully accounted for by the increase of the charges of adjusting since 1894, and in the increase of the number of items now allowed in general average. If we take the result of the 1910-12 period, being the later one of the two, viz., 12½ per cent., and deduct from it the cost of adjusting charges, which is estimated at 15 per cent. (certainly under the mark, as I make it 18.6 per cent., see previous figures), general average settlements may be taken as not more than, say, $10\frac{1}{2}$ per cent. of the total claims. This 10% per cent. includes general average of all kinds, such as payments to salvors, port of refuge expenses, and all other charges connected with a general average adjustment. Of this 10½ per cent. then, it is further estimated that three-fourths of it, say 7½ per cent., represents the payments for general average sacrifices only, so that out of every twenty shillings of premium 1s. 6d. is necessary to provide for such losses, and 18s. 6d. for all other losses.

From the underwriters' standpoint, reform is undoubtedly necessary, and the recommendation of Lloyd's Committee and others to abolish all allowances for general average sacrifices would be a very definite and important step in the direction of reform well worthy of support. The kernel of the question is touched in analysing Companies' loss accounts, and the increase of premium necessary to provide for these sacrifices evidently lies somewhere between 5 per cent. and $7\frac{1}{2}$ per cent. This means that underwriters could pay all such sacrifices as direct claims, whether on cargo, freight, or hull policies, by securing a very moderate increase in premium. Indeed, the two underwriters before referred to are evidently of opinion that a general increase of premium would not be necessary, but that some readjustment might be found workable.

We have seen, from figures quoted, that the general average sacrifices and general average expenditure in the case of one Company are estimated as $10\frac{1}{2}$ per cent. of the total claims paid of every kind, so that an all-round increase of, say, 10 per cent. in premiums would enable the underwriters to pay all general average losses and expenditure as direct claims. Why not, then, go a step further, and abolish general average altogether, as suggested by Mr. W. H. Jarrett in 1890? If the leading

British underwriters would co-operate by supplying similar information to that given above, the proportion that all general average settlements (sacrifices and expenditure) bear to total claim settlements of every kind, would be ascertained on a scale large enough to be a reliable guide, and we should know the alteration or adjustment necessary to be made in rates. If it could be shown to shipowners that but little, if any, change in rates would be necessary to abolish general average, then their co-operation might possibly be secured. Mr. Owen has shown that it would be largely to their advantage to agree to the shutting out of all general average sacrifices, and to eliminate the expenditure also is but another moderate step.

The most important objection of the shipowner, no doubt, will be that he would lose the allowance for wages and maintenance of crew whilst the vessel is in a port of refuge, as that expense would not be recoverable under the hull policy, but a moderate increase in the rate of premium to insure this risk could be arranged with the underwriters, and it is easy for the shipowner to make a small increase in freight to cover it.

It has to be admitted that, where any change involving an increase, however slight, in their liabilities is concerned, the prospect of shipowners agreeing to it is remote; their policy for many years past has been to free themselves from every conceivable responsibility unded the bill of lading, and in some forms they incur practically no liability whatever. They are paid or to be paid the freight, and that ends the transaction. In giving evidence before the Dominions Royal Commission in London in June last, Sir Norman Hill, speaking as representing the Liverpool Steamship Owners' Association, is reported to have said that—

Bills of lading are a contract between the shipowner and the shipper, and if the latter chooses to allow the shipowner to contract out of his liability for pillage, damage by rats, damage by goods landed at night time, improper stowage, and other loss occasioned by negligence, that was a matter of mutual arrangement with which the State, or any other third party, had no immediate concern.

This is a very frank statement of the policy of shipowners. Referring to the "Australian Sea Carriage of Goods Act, 1904," the same witness said, that—

If Australia prohibits shipowners from exempting them-

selves from the liabilities imposed by British common law, then only the shipowners prepared to accept those risks will send their ships to Australian ports.

The particular shipowners referred to will therefore have to avoid other countries besides Australia, for similar legislation exists in the following countries, viz.:—

United States, "The Harter Act, 1893." New Zealand, "The Shipping and Seamen Act, 1903." Canada, "The Canadian Water Carriage of Goods Act, 1910."

Freedom of contract is a good thing generally, but it does not exist when on the one side there is a powerful shipping federation controlling the conditions of bills of lading, and on the other a large number of individual shippers who are forced to find ships to carry their goods, and amongst whom there is not the cohesion of the strongly organised shipping concerns with their elaborate system of Mutual Protection Associations. The Incorporated Chamber of Commerce of Liverpool approached the Right Honourable the Attorney-General of England, Sir J. A. Simon, in January last, with the object of urging upon him the necessity of the revision of the British laws to regulate bills of lading on the lines of the legislation in Australia, &c. I believe that the "Dominions Royal Commission "was the direct outcome of that interview, and it may be hoped that something definite will result from it in the direction required. The Liverpool Chamber was constrained to take this step, owing particularly to two further objectionable clauses which were being added to the bills of lading by some shipowners, one to contract that the cargo should pay onehalf of the extra expense involved in labour disputes preventing the loading, discharging, or delivering of cargo, and the other contracting that they shall not, under any circumstances whatever, be liable for any loss or damage, including negligence, which is covered or is capable of being covered by insurance. If these two drastic clauses are included in bills of lading generally, I do not see how shippers and consignees can counteract them except by moving for further legislation, and though it may be difficult to introduce a new law in England, yet in Australia, and those other countries which have already passed laws regulating the

provisions of bills of lading, it would not be so difficult to secure additional protection.

I have referred to this question of bill of lading conditions because it is in these that the exclusion of general average would have to be provided for should shipowners and underwriters ever reach a mutual agreement on the matter. Also, because I am convinced that the practice of shipowners of contracting themselves out of their common law liabilities under bills of lading is quite wrong in principle and unsound in public policy, for in the vast sea-carrying trade of Great Britain its smooth working is of the utmost importance to the whole Empire. It is well known, however, that the present bill of lading conditions cause much inconvenience and loss to shippers and consignees (see the statement of the case so ably prepared by the Incorporated Cmamber of Commerce, Liverpool, for the Right Hon. Sir J. A. Simon), and a feeling of injustice prevails in the minds of many merchants against a system they are powerless to alter, and one which deprives them of all legal remedies. In the interests of shipowners themselves, as well as those of all others concerned, it would be found eminently more satisfactory that the common law liabilities under bills of lading should rest where the law places them, and if protection is required, insurance against such liabilities can be secured from underwriters. Or, better still, the Mutual Clubs or Protection Associations could give the shipowner relief. This latter would, in my opinion, be the better method, because, being institutions managed by shipping experts, they would know when their members were not sufficiently careful of their responsibilities, and would make a charge proportionate to the protection given, and this could be added to freight.

As a matter of fact, the question of abolishing general average and the alteration of bill of lading conditions rest chiefly with the shipowners. In their own interests why not reverse the present practice and retain all common law liabilities, also the expenses caused by strikes, and any other costs which arise in the course of their business? The protecting institutions would give cover for such risks, and failing them, then underwriters would insure them. So, with general average, even if its abolition increased the premiums on hulls by 10 per cent., which is open to doubt, it is easily

recouped through freights. A Shipping Federation call of one penny per ton yields £45,000 (see Mr. Wm. Raeburn's letter of 5th March, in "Fairplay" of 12th March last), so that a few pence per ton would provide a fund sufficient to cover the items we are discussing.

It would be a mistake to take my remarks as antagonistic to shipowners in the slightest degree. No one realises more than the underwriter that, for any risks accepted and expenses incurred in any business, such contingencies must be fully provided for in the remuneration received. I have merely indicated what appears to me to be a simpler system, far more convenient, equitable, economic, and direct, and one that I am sure would remove friction.

And as for general average, the shipowner would benefit from its abolition equally with the underwriter. The heavy cost, inconvenience, and delays of the system would be saved by both, and the shipper and consignee would readily follow the lead of the shipowner and underwriter.

I may say that, on the Continent, the practice of excluding general average from bills of lading has been given a trial in the river trade by the Badoise Rhine Navigation and Maritime Transport Company of Antwerp and Mannheim. General average was excluded from their bills of lading in 1898, and for some years after, and, I have been informed, with satisfactory results. About three or four years ago, however, most of the German shipping companies on the Rhine decided to adopt uniform bill of lading conditions, which included general average, and the Badoise Company, in order to join the combine, adopted the syndicate's bill of lading. A further test of the exclusion of general average, on a larger scale, will not therefore be made for the present by the Rhine shipping companies.

In view of the present war, and the strain and stress which follow in its wake, this subject will, no doubt, fail for the time being to attract the attention it deserves.

I trust, however, that I have succeeded in interesting you, and that you may consider some of the points dealt with worthy of discussion.

CO-OPERATION IN ACCIDENT INSURANCE.

By J. C. M'BRIDE (Accident Manager, Commercial Union Assurance Company).

A Paper read before the Insurance Institute of London, 14th December, 1914.

Before considering Co-operation in its relation to the theory and practice of Accident Insurance, we may with advantage briefly study its effects upon industry as a whole, and the complex social fabric comprised in modern civilisation. Co-operation is the keystone of success in all human endeavour. It ensures that the best results of the work and thought of the individual shall be combined with the best results of the work and thought of all individuals acting in concert with him, and so avoids the waste incidental to isolated effort. The achievements of civilisation are largely the result of co-operation, in an increasing degree, through the ages that have gone before us, until the present time. Science owes its achievements to its devotees prosecuting research in co-operation with their contemporaries, and to the garnered experience of their predecessors, who in turn acted in concert with one another.

The modern printing machine, which hourly turns out thousands of newspapers, those disseminators of information rarely authentic and often altogether imaginary, is the direct descendant of the rude wooden press which Caxton designed centuries ago, and yet it differs from Caxton's press in almost every detail. The intricacy of its mechanism, and the almost uncanny accuracy with which it achieves its purpose, are the result of countless inventions and improvements, each of little use in itself but of vital moment when co-operating with the rest.

The submarine and super-Dreadnought alike exhibit the co-operated results of invention and experiment by marine engineers in this and past generations. Perhaps a better example may be found in the motor cycle, because that marvel of mechanical ingenuity, as it is, has been evolved from the "push-bicycle" in the lifetime of the youngest of us. The modern motor cycle, the outcome of the thought and the work of numerous inventors and engineers, embraces in itself many patents, each of which is only of importance when associated with the others.

Coal, indispensable alike for our personal comfort and economic well-being, is got in the depths of the earth, at a minimum of cost and risk, only because of the associated inventions and experiments, and the combined experience of chemists and geologists, civil engineers, experts in ventilation, experts in the manufacture of explosives, in the work of mechanical coal-getting, in pit-sinking, and in many other directions. But it is not alone in the perfection of mechanical contrivances, or in the construction of material things, that co-operation is pre-eminent. In a broad sense all Government is the result of co-operation amongst peoples. Its advantage is brought prominently to our notice to-day in the position of the Allies when compared with that of isolated Germany. We have every reason to hope that the greatest danger that has ever threatened civilisation will be overcome by combination. The old adages still hold—" Unity is strength," " United we stand, divided we fall."

What is known to economists as "Co-operation" is concerned more particularly with capital and labour. Capital needs labour—labour is necessary to capital. Each gives what the other lacks. Co-operation makes use of both, and suggests to each, prudent courses which may be followed with advantage to both. Let me for a moment refer you to the Returns of the Chief Registrar of Friendly Societies for 1913, to illustrate the influence of co-operation on the buying and selling of common commodities. The total sales of the Co-operative Societies in the United Kingdom reached last year the enormous sum of £130,000,000 sterling, whilst other forms of business represented a further turnover of £50,000,000. Now, this co-operation implies buying cheaply, and a reduction in working expenses, with a consequent ability to sell cheaply to the

Co-operators. The actual figures for 1913 reveal, in addition, a net profit of more than £13,000,000, which enabled these Societies to return 2s. in the £ to the purchasers, and to pay a dividend of 4 per cent. on the capital invested.

Before discussing Co-operation as it affects Accident Insurance, let me invite your attention to its bearing upon other branches of the Insurance profession. The Fire Offices Committee, the Institute of Actuaries, and the Life Offices Association have attained their eminent positions solely by co-operation. But for it, Fire Offices would not have at their disposal the accumulated experience of the varied Fire hazards, which depends upon structure, conditions of manufacture, locality, proximity of other risks, the nature and quality of the goods manufactured or warehoused, and so on. Neither would the Life Offices possess that broad basis for the calculation of premiums which the accumulated experience of human life derived from the combined operations of all of them affords.

Now let us consider how Accident Insurance is affected by the principle of co-operation. I propose to deal with the matter from the standpoint of—

- 1. The Insurance Office,
- 2. The Insuring public,
- 3. Those engaged in the conduct of the business.

The time at our disposal will only permit us to consider a few of the many ways in which co-operation affects the Offices. Many factors enter into the Underwriter's consideration of a risk; the character and commercial standing of the Proposer, the circumstances incidental to the particular case, the probability of any variation in these circumstances during the currency of the policy, past claims experience, and so on; but it must not be imagined that co-operation implies Underwriting on the "penny-in-the-slot" system, and leaves nothing to the judgment and experience of the Underwriter. Co-operation does not cripple initiative. The Underwriter is chiefly concerned with the probable claim cost, for upon this the premium to be charged primarily depends, and it is only possible to forecast it with any approximate degree of accuracy in the light of the experience of risks of a similar class. Scientific Underwriting, as apart from mere speculation, will be accurate in direct proportion to the experience. However wide the experience of the individual Underwriter may be, it is patent that it

cannot equal the combined experience of many Underwriters. Co-operation enables the individual Underwriter to take advantage of an experience which in any event must be greater than his own, and by the help of collated experience he can, given the requisite qualities, attain that measure of skill in gauging risks which will ensure a profit on his transactions.

The passing of the Workmen's Compensation Act of 1897 heralded the advent of many Companies in the field of Insurance, but although the then experience of Workmen's Insurance was of a very limited character, dependent as it was upon the results of Employers' Liability Insurance, the Companies would have gained a manifest advantage by acting together, and so rapidly accumulating an experience which was impossible to them individually. They failed to co-operate. The Underwriter rated risks from two, often diverse, standpoints—

- 1. His own idea of the rate;
- 2. The rate obtainable in competition.

Employers of labour were able to unload at inadequate premiums the very serious liability the law imposed upon them. The inevitable happened. What should have proved a lucrative source of revenue for the Companies resulted in disappointment and heavy loss. The Offices, warned by the consequence of ten years' trading on unsound lines, wisely decided, on the passing of the Workmen's Compensation Act, 1906, to take advantage of the altered conditions, and to combine for their common good. The Accident Offices Association as at present constituted came into existence in June, 1906.

Now, the Workmen's Compensation Act of 1906 imposed upon employers far greater liability than did the Act of 1897, and it was evident that proportionately higher premiums would be required. Of course, no actual experience of losses under the Act of 1906 was then available, but the experience acquired under the working of the Act of 1897 afforded a basis upon which to estimate the premiums requisite to insure liability under the new Act. One of the first steps taken by the Associated Offices was to collate their experience under the Act of 1897, and to provide for the collation in the future, in great detail, of their experience under the Act of 1906. In

order to understand how the claims cost in any particular trade is arrived at, and to appreciate the value of co-operation, the method by which premiums are charged may with advantage be explained. A fixed charge per head for employees in any trade would not yield the required result, for the Workmen's Compensation Act provides that an employee shall receive one-half of his earnings during disablement by an accident or injury which comes within the scope of the Act, and the earnings of employees differ not only in trades as compared with one another, but in the same trade, according to the grade of the employment, the skill of the employee, the number of The earnings of the hours he works, and other factors. employee, however, afford a satisfactory basis for calculating the premium, for if his earnings be large, the compensation to which he is entitled will reach the maximum weekly payment provided by the Act: if his earnings are small his compensation will be small in proportion. The total earnings of all employees are, therefore, the true measure of the risk, and constitute the primary basis for rating and for ascertaining the claims cost. If during the period of Insurance—for the sake of convenience, say one year—the earnings of all employees amount to £10,000 and the claims have involved an expenditure of £50, the claims cost for the year is ten shillings per cent. upon the earnings. Similarly, the aggregate expenditure in claims in connection with all employees in the whole of a given industry over a number of years would not only yield the actual claims cost, but it would also forecast with greater certainty the expectation of claims for that industry, seeing that the basis of calculation was much broader. Now, it follows that the collated experience of all Associated Offices in respect of any given industry, or of any particular grade of labour in that industry, must afford a much more reliable basis for estimating the claims cost, than could the figures derived from the experience of one Office alone, however wide its operations were. Without betraying secrets, I may tell you that recently the Accident Offices Association had under consideration the adequacy of the rates charged for a certain industry. The combined experience of all the Companies upon which the actual claims cost was ascertained, was based upon a wage roll of £123,548,000, figures which I venture to think would appeal to the keenest mathematical mind as a sound basis upon which to calculate the cost of the " expectation."

The Workmen's Compensation Act of 1906 has now been in operation for seven years; the Accident Offices, entirely owing to co-operation, have at their disposal figures which predict with great accuracy the claims cost in a very large number of trades, and in the various classes of occupation and employment into which many trades are sub-divided.

The great increase in the use of mechanically propelled vehicles opens up a wide and varied field for the Underwriter. During the year ending November, 1914, there has been an increase in the number of such vehicles of no less than 111,695, as compared with the previous year. A Motor Policy provides indemnity in respect of several hazards:-Damage to the car from any cause, including Fire; Liability of the owner for damage to property and injuries to persons; Loss of the car or any of its accessories by theft. Motor traction being of comparatively recent origin, experience of the cost of these diverse contingencies is limited. The motor car of to-day is altogether different from that of only a few years ago, not only in the principles of its construction but in almost every detail. It is the outcome of the combined skill and unremitting study of mechanical and engineering experts, always on the look-out to ascertain how improvements may be effected, whether by way of increased speed, smoother running, reduced petrolconsumption and other economies, lessened vibration, or any other of the hundred and one things which make for safety and comfort. Great as these change have been of recent years in motor construction, it is probable that the limit has not yet been reached, and that numerous improvements may be anticipated in the near future. Motor vehicles of to-day serve many purposes. They range from the handy little two-seater to the motor 'bus and the ponderous five-ton motor lorry. We have much to learn before we can measure the Insurance liability involved in these complex and ever-changing risks, dependent upon such diverse factors as construction, motivepower, speed, nature of roads, locality (whether town or country, hilly or flat, crowded or sparsely populated), the trade in which the vehicle is used, and the class of goods, if any, carried. It must also be borne in mind that the extensive use which the public now makes of motor vehicles has given rise quite suddenly to circumstances new alike in the experience of the driver and of the general public. The Case Law, bearing

on these circumstances, is still in the making. The decision of judges and juries in the frequent cases of claims for heavy damages which are before the Courts cannot be forecasted with any degree of accuracy. Rapidity in collating the experience which results from these rapidly-changing circumstances is of the first importance. Although it is true that, provided the funds of his Company hold out, an Underwriter acting independently may eventually acquire a certain degree of experience, his individual experience obviously cannot have the same value as the wider experience which he would acquire by co-operation with other Underwriters.

Every description of Insurance, other than Life, Fire, and Marine, is usually comprehended in the term "Accident Insurance." The Accident Underwriter is called upon to deal with many and varied risks. A demand has arisen for Insurances which were not contemplated five-and-twenty years ago, when Accident Insurance was practically restricted to personal injuries. To-day Insurances may be effected against many contingencies, such as:-

Theft of the contents of private houses or business premises. (Last year there were 1667 cases of housebreaking in the metropolitan area of London.) Liability for damage to property and for personal injuries

due to negligent driving of-

(a) Private motor cars;(b) Motor wagons or lorries;

(c) Private carriages; (d) Horsed trade-vehicles;

Structural defect of buildings; Elevators in private houses or business premises;

Liability for injuries to the public whilst on business premises;

Plate glass breakages;

Workmen's Compensation — commercial domestic;

Inspection and upkeep of boilers, and liability for explosions;

Dishonesty of employees;

Due performance of Trusts, Administrations, Executorships, and the like;

Fulfilment of Contracts;

Bad debts;

Live Stock:

Loss of Scrip or Bonds;
Loss by forging of Transfers;
Defective Titles;
Cash in Transit;
Damage by Storms;
Mariners' Effects;
Mariners' Board of Trade Certificates;
Negligence of Pilots;
Negligent making-up of Doctor's Prescriptions, etc.,
etc.

The beneficent effect of "co-operation" in Underwriting is already apparent in Employers' Liability, Workmen's Compensation, Motor Car, Personal Accident, Fidelity Guarantee, Third Party, and Live Stock Insurance. The principle of co-operation in Underwriting must of necessity, in days to come, be extended to many other classes of Accident Insurance.

Co-operation affects Management Expenses and Claims. New businese is more costly to procure than renewals are to retain. By insuring level rates and benefits, co-operation discourages undue competition and the transfer of Insurances from one Company to another. Other things being equal, the Insured remains with the Office whose Agent has the greater influence with him. The Agent justifies the receipt of commission, not by being in a position to offer "cut" premiums and extended benefits, but by his personal influence with the Insured. For instance, ten prudent persons are insured in a first-class Office through the agency of, shall we say, John Smith, of St. Albans. Five other Offices are anxious to increase their Premium Income in that neighbourhood. An Inspector of each of the five Offices approaches Mr. Smith, with an offer of higher commission and some "advantage" for his Clients in the shape of reduced premiums or extended benefits. The energies of one Inspector are exercised to retain the business: those of the other five to divert it. Had each of the five Inspectors enlisted the interest of a new Agent, and successfully canvassed ten new Clients, the Companies in all would have secured fifty new policyholders. As it is, the expenditure in salaries and travelling expenses which could have accomplished this has been wasted, for at the finish the Companies between them still only share the ten original policyholders, whilst the Agent, although his scale of commission has been increased, has not really benefited; he has been too much occupied in transferring and protecting his connection to look for new business.

Statistics and records in connection with many matters are essential to the conduct of Accident Insurance: economies both in time and money result from their compilation by all the Companies, for the use of each. Time will not permit my referring to many other directions in which co-operation favourably affects expenditure.

It goes without saying that the great majority of Insured are honest folk. Having paid a premium, the Insured very properly looks to the Office to discharge its part of the bargain when a claim arises. The idea of receiving ninepence for fourpence is no new one, and who can blame the policyholder if at times he tries to improve his bargain? It is to the advantage of all Companies to meet claims in a liberal spirit, and a request for a generous settlement is met willingly and in the ordinary course of things. The bugbear of Accident Insurance is the person who with intent sets out to defraud, and who would, if not "kept under," materially add to the cost of the honest man's policy. Several Personal Accident Policies are perhaps taken out by the same person with different Offices, but not necessarily in the same name. The aggregate amount of weekly compensation is large, and some injury, real or simulated, makes the opportunity to secure it. A patch of grease or a banana skin on the floor of a tradesman's shop will provide the opportunity for a fall and consequent injuries and legal proceedings, quite as readily as an open cellar-flap or the rope which a brewer's drayman has stretched across the pavement. In cases such as these, a physical deformity or an old wound serves the fraudulent claimant in good stead. Nervous disease, whether due to accident, overwork, or other cause, is often difficult to diagnose, and claims for Neurasthenia call for very careful handling. Neurasthenia may in reality exist, or it may be only affected; the symptoms being mostly subjective, the medical man has to rely to a great extent upon the statements of the claimant. It is common knowledge that since the National Insurance Act came into operation there is a marked increase of disability attributed to Neurasthenia; the Approved Societies find payments on this account to be quite outside the expectation. Traumatic Neurasthenia has been defined by a cynic as "shamming, dignified by a high sound-

ing name!" It is, of course, nothing of the kind: it is the medical term for "nervous shock consequent upon accident," but, being easy to simulate, it constitutes a happy hunting ground for the professional claimant. What evidence can the Office produce to the contrary, when the claimant states that his head aches, his limbs quiver, his nerves are shattered, that anything in the nature of exertion is impossible—and when the mere mention of work produces a horrible collapse? Many dodges practised by these "gentry" are clumsy frauds, but the detection of the more ingenious involves the expenditure of much time, trouble, and money. Personal injuries do not, of course, afford the only opportunity for deception. To tamper with a window catch, and to trample on a flower bed, may suggest evidence of a burglary, when the owner of the house is himself the thief; I might detail other methods until I wearied you. Every Accident Office of necessity keeps a Rogues' Calendar. The extent of the protection afforded by it to each Company depends entirely upon the information contributed to it by all.

Co-operation benefits the Scheme of Insurance as a whole: it enables us to give the world what it clamours for, at a fair price, and secures for the Insured—

(1) Equitable Premiums;

(2) Generous treatment of Claims;

(3) Financial stability.

The better the article we are in a position to offer, the more co-operation is justified. Insurance whose only recommendation is its "cheapness" is "dear" in the long run. That which cost little may not be worth the trouble of acceptance. When Isaac said to Moses, "Have a cigar?" he replied, "What is the matter with it?" Moses knew a bit! The merchant who advertises his goods at less than cost price is either a philanthropist, a lunatic, or a liar. Co-operation produces equitable premiums, inasmuch as it restricts expenditure, conserves energy, and prevents waste. Companies need not of necessity charge the same premiums; some are able to carry on business at a less expense than others. Policyholders consequently benefit by insuring in well-managed Offices.

The collation of claims experience ascertains the safety mark below which premiums cannot possibly be reduced. The fairness of a premium cannot be judged by its amount. It is only equitable if it enables the Company to carry out its obligations to the policyholder in full.

I have referred to the unsatisfactory conditions under which Workmen's Compensation Insurance was transacted in the early days of the Act. Employers, tempted by "low" rates, effected Insurances with unsound Companies—Companies with no financial stability. Quite a number of Offices went into liquidation, leaving employers with unsettled claims upon their hands. When I remind you that in the event of a permanent injury to a workman the liability of the employer is lifelong, you will appreciate what this meant.

Insurance differs from ordinary commerce in this respect. The goods are not delivered at the time payment is made by the customer; the occasion for delivery may never arise. Hence the temptation to amass income at inadequate premiums, trusting to luck and "no claims." The fact is overlooked that so soon as a sufficient number of risks have been undertaken, the inexorable "law of average" will apply.

It may be urged that by co-operation Offices could form a ring to force up premiums against the public. The economic conditions which prevail in Insurance make this impossible. Abnormal profits would quickly attract capitalists, and lead to the flotation of new Companies, content to trade for a modest return. Co-operation cannot eliminate competition.

Those actually engaged in the conduct of business naturally regard matters also from a personal standpoint, and it remains to consider how co-operation affects them. If a business succeeds, its success re-acts upon those who are concerned in the management and conduct of that business, and the converse holds in the case of failure.

At the outset I showed that in many different spheres of human activity combined effort produced better results than even the most efficient work of the isolated individual, for the best products of the labour and energies of each individual are secured for the advantage of the general body, whilst that which is less efficient in the work and effort of the individual is discarded. Now, this general economic law applies with great force to our particular case. Whether our position in the Company we serve is one involving great responsibility, or is, as yet, but a lowly one, the effect is the same. Co-operation enables us to impart to others the best which we ourselves

have to offer, and to derive from all the others with whom we co-operate the best which they have to give. By acting in unison we are able to produce better results for our Offices, and, as a consequence, to obtain advantages for ourselves which could never accrue if we worked independently of one another, no matter what brains or what amount of perseverence the individual brought to his task.

The Insurance Institute of London is an outstanding example of the principle I have advocated. Ever since its inception the President has been a leading member of the profession, the guide, philosopher, and friend of all the Members. This tradition is maintained admirably by the present occupant of the Presidential chair. The opportunities for mastering the "technicalities" of Insurance which the Institute Classes afford are of the first importance to those of us who are still on the lower rungs of the ladder. There is no doubt that those of our younger members who avail themselves of those advantages must attain better positions in the future than those who do not.

In conclusion, there is another, and by no means a less important, way in which we are influenced personally by co-operation, as embodied in the Insurance Institute of London. I mean socially. The times in which we live become more strenuous year by year. Competition is keener than ever, and although we are all imbued with the kindliest feelings towards our competitors, it is inevitable that friction will occur. The Institute, by bringing us into personal contact with one another, furnishes the best lubricant conceivable for oiling the wheels of the industrial machine, for rounding off sharp corners, and making rough paths smooth. Everything that assists the machinery to run smoothly makes for regularity and increase in the output, improvement in the goods, and the well-being of him who controls the machine; in short, for allround efficiency. Many things bring satisfaction and happiness besides the mere acquisition of money. It is the duty of every man to make his business or profession one in which he can find pride as well as profit. It is "up to" every man to strive, through all his days, to advance the well-being of others, and so to uphold the best traditions of his profession, that when the time arrives for well-earned rest and retirement he may be able to say with truth and honest conviction,

[&]quot;I did my best for others."

THE TREND OF MODERN LIFE ASSURANCE.

By W. A. ROBERTSON, F.F.A., F.C.I.I., Actuary to the Century Insurance Company, Limited.

A Paper read before the Insurance Institute of Aberdeen, 9th December, 1914.

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THE TREND OF MODERN LIFE ASSURANCE.

I HAVE been asked by your Council to write a paper on Life Assurance, and to include a few notes upon modern Life Systems with reference to up-to-date Option Policies, etc.

I would like, before taking up the subject of Special Schemes, to speak upon what I might term some current controversial problems.

THE NECESSITY FOR RESERVES.

The question of Reserves is one of the most difficult in Life Assurance trading, and perhaps it is the one that is least understood by the average man.

It is always interesting to see ourselves as others see us, and one of these "others" was telling us some time ago that, "barring the small dividends made to policy-holders periodically, these Companies point to their several hundred millions of dollars assets which are continually increasing, and say they belong to the policy-holders; but when this generation of policy-holders dies without having received their division of the same, a similar representation is then made to the next generation of policy-holders, and so on down the generations."

Now, many of the statements made by our critic are perfectly true. It is the case that we point with pride to our funds, that the funds are continually increasing, and that we boast that the funds belong to the policy-holders. It is also the case that when the present generation of policy-holders dies we shall make similar representations to the next generation of policy-holders, and so on down the generations.

The point that is overlooked by our critic is that the fund which is held by the Office by way of Reserve is the sum required to meet the liabilities of the Office under the contracts which are at present in force. At the outset, the present value of the benefit under a Life Assurance policy is exactly equal to the present value of the net premiums payable. With the lapse of time the conditions alter. The date at which the benefit is to become payable approaches, i.e., the value of the benefit increases. On the other hand, the number of premiums remaining to be paid diminishes, i.e., the value of the future net premiums diminishes. The difference between the value of the benefit and the value of the future net premiums constitutes the Reserve under the policy, and is the sum which the Office must have in hand to provide for that portion of the risk that is not covered by the future net premiums. amount of the fund is so calculated that if the Office should cease to transact new business, the fund in hand, together with the future net premiums payable, would turn out to be the equivalent, and no more than the equivalent, of the future claims under the policies which are at present in force. Without such a fund the Office would not be able out of the net premiums payable to pay the claims as these arise. With such a fund the Office is able to assure its policy-holders that the claims will be met in full, and in proof of this statement it points to the fund, which belongs to the policy-holders, and which, in proportion to the basis by which it is calculated, is the guarantee by the Office to the present generation of policy-holders that the interests of the policy-holders are being looked after by the Office.

NEGATIVE POLICY VALUES.

I scarcely thought it would have been necessary to refer to the fact that in a first-class Office every policy on the books of the Office at the periodical valuation is looked upon as a liability, and that no policy is considered to rank as an asset.

I would not have done so this evening but for the fact that in the Insurance Notes of one of our leading papers I noticed the following:—"It follows, of course, that whether a particular policy will rank as a liability or an asset depends upon circumstances. For example, one on the Endowment plan payable at the age of 60 would involve a large liability when the age of the beneficiary is 59, as there is an almost immediate necessity to pay the face value of the policy, and the amount of premium to be received is very small. On the other hand, where the assurer is still very young and is insured for the whole of his life, the policy would rank as an asset, as the average amount to be received in premium would be considerably larger than the present value of the ultimate sum which the Office will have to pay."

I would like to say emphatically that this is not the case. In every first-class Office care is taken that no policy is treated as an asset, if only for the reason that the policy might be allowed to lapse by the assured, in which case there would be a loss to the Office of the amount of the "credit." I am quite aware that the principle of taking credit for Negative Policy Values might be defended on the theory of averages, but the principle is not to be commended, and this is the view that is taken by the first-class Offices.

LIFE ASSURANCE OFFICE NOT A PHILANTHROPIC INSTITUTION.

I cannot help thinking that much of what I might call the misunderstanding that occasionally arises between the Public and the Insurance Offices originates in a mistaken idea of the functions of a Life Assurance Office.

Take, for example, the question of War Extras. Some of the Offices exclude War Risks under their policies. Now, at the outbreak of the European War we frequently heard it stated that no Office should be allowed to charge Extra Premiums for war risks under its existing policies to Territorials volunteering for foreign war service and to the new levies raised for the war.

Please do not misunderstand me. I am not here discussing whether the Offices were right or whether the Offices were wrong in waiving the Extra Premiums for those policy-holders. I am dealing only with the ethics of the case. So far as I have been able to understand the case for the waiving of the Extra Premiums, it is founded on three theories:—

First, that the Life Offices should, before anything else, be patriotic;

Second, that the Life Offices, being wealthy institutions, can easily afford to do without Extra Premiums; and Third, that it is hard on those who have volunteered to have to pay the Extra Premiums.

Now, it is not the case that the Insurance Offices are lacking in patriotism, so far as it is possible for the Offices to be patriotic at their own expense and not at the expense of their policy-holders. Neither is it the case that the Offices are wealthy institutions in the sense that the Offices have funds in hand sufficient to fulfil their obligations to their policy-holders and to spare for charitable purposes. A wealthy person is a person who is abounding in riches, and very few Insurance Offices abound in riches.

An Insurance Office, after all, is engaged in a business for the benefit of its policy-holders, and it is the duty of the Directors to so use the funds of the Office as to be fair to all the policy-holders. The Directors of the Office are Trustees for the administration of the sums entrusted to them, and as Trustees they are responsible to all the policy-holders. If the Directors decide to free and relieve certain policy-holders from the payment of Extra Premiums which are due under their policies, they ought, strictly speaking, either to pay the Extra Premiums out of their own pockets or to confer an equivalent benefit on the other policy-holders of the Office. Moreover, there is, as it seems to me, no reason why an Insurance Office should bear the cost of the whole of the additional risk of warfare if this is expressly excluded under its policies of Assurance. The service rendered by soldiers and sailors is not to the Insurance Offices alone but to the nation at large, of which the policy-holders only form a part. An Insurance Office cannot, in justice to existing contracts, play the part of a philanthropist, and there is a limit of liability beyond which no Office can go.

It seems to me that the point which is arising with the Life Offices has arisen over and over again with the Fire Offices.

It has been urged in certain quarters that the Fire Offices should bear the whole of the expense of the Fire Brigades. If such a rule were enacted, it would mean that the expense of the Fire Brigades would be borne, not by the community, as it should be, but by those persons who have taken the precaution to insure against Fire. The important point to keep in view is that the Fire Brigades are for the benefit of the community as a whole, and not for the benefit of the insuring members of the community.

It is sometimes said that the Extra Premiums charged by the Offices to new policy-holders for the European War are ridiculously high, and that it is unfair of the Offices to wish to make a profit out of the war. The same report was published at the time of the South African War. The rate of Extra Premium charged by the Offices for the first year of that war was £7 7s. 0d. per cent., while the death rate for the first year of the war, obtained from the experience of the Officers of the Combined Forces, was £7 16s. 0d. per cent. "It should be noted, for it is most important, that this rate of £7 16s. 0d. per cent. was for the first year of the war only, and cannot be said to represent the correct Extra Premium for existing policies at the commencement of the war or for a new policy to be continued after the expiration of the war. It is, in fact, the Term Premium for a Temporary Insurance of one year. On the one hand it is true the rate covers the risk of death from normal mortality, but on the other hand it does not take into account the probability of deterioration through wounds or disease contracted during the campaign. What the value of this liability to deterioration is, it is impossible to say, but no doubt it is very considerable "(J. I. A., xxxvii., 568). The rate of mortality in the European War is certain to be heavier than in the South African War. Also the deterioration caused by the present war will, from all accounts, be very great.

If we turn for further guidance to the mortality experience during other wars, we find that the death rate during the Franco-German War (1870-1) was 9.66 per cent. per annum. In the Russo-Japanese War (1904-5) the death rate was 7.93 per cent. per annum. An English military authority places British losses in killed and wounded alone in nineteen principal battles during the past 150 years at 19 per cent.

I would like to refer to another point. Some persons have expressed the opinion that if only an Insurance Office would announce its intention to charge no Extra Premium, or a very limited Extra Premium, for War Risks, either to existing policy-holders or to new entrants, that Office would get a splendid advertisement. I question if the advertisement would be to the permanent advantage of the Office. Undoubtedly the Office would obtain a very considerable volume of business, and the value of the advertisement might continue until the next investigation of the Company. It is doubtful if the value of the advertisement would continue any longer. It is obvious that no person, not even an Insurance Office, can give something for nothing, and it is evident that if the Extra Premiums charged are insufficient, the surplus of the Office at the first investigation after the outbreak of the war would be less by the loss to date on the war business, which means that the bonus to the policy-holders may have to be reduced as compared with the rate declared at the previous investigation, and will in any case be less than it would have been if the Office had not accepted these War Risks at inadequate rates of premium. The worst of it is that the Office will not, in all probability, be able to put itself right at the first investigation. The loss will continue for several valuation periods.

It would be all well enough to-day to direct attention to this or that Office as being a patriotic Office in the matter of its acceptances, but after the war is over patriotism will not, I fear, be looked upon as the test of an Insurance Office, or even as one of the tests of an Insurance Office.

If the bonus of the Office commenced to decrease as the result of its patriotism, I question if even those persons who to-day might be inclined to commend the Office for its "fine patriotism" and for its splendid "conception of the meaning of Assurance," will be prepared to continue to recommend the Office. After all, as I have pointed out, Insurance is a business, and must be worked by men of business upon business principles. This is a point which, in my opinion, is far too frequently overlooked.

With regard to the third theory, I admit at once that it is hard on the "volunteer" policy-holder that he should be called upon to pay Extra Premiums for War Risks. I feel certain that when he took out his policy he never gave two thoughts to the condition in his policy which excluded War Risks, assuming that there is such a condition. If he had thought that there was any chance of his being called upon to take his share in his country's difficulties he would have provided for the possibility by paying a slight increase in the premium payable, but he was entitled to assume that his profession or occupation had nothing to do with War Risks and that no provision was necessary. Also, the policy-holder is serving his country, and, for the time being, his country is his employer.

In justice to all policy-holders, Extra Premiums must be received under restricted policies, and in the opinion of many these should be paid by the State, who could transfer the burden to the whole of the community. Two methods suggest themselves:—

hemselves:---

1. The State should pay the Extra Premiums required for the war, such Extra Premiums to be fixed by the Life Offices Association and the Associated Scottish Life Offices in consultation with the Actuarial Advisers to the State, or

2. The State should pay to the Offices the difference between the sum assured and the reserve value in respect of those policies which become claims as a

result of the war.

INSURANCE AGAINST WAR RISKS.

I pass on to Special Schemes. I would like, in the first place, to deal with those schemes that have been put forward for Insurance against War Risks.

Shortly after the outbreak of the war one of the Offices indicated its willingness to issue Endowment Assurances with Profits payable at the end of 25 years or earlier death at a rate of Extra Premium which was to be payable during the continuance of the Assurance. The policy is applicable to all serving in His Majesty's Forces at home or abroad. The policy issued to volunteer soldiers is absolutely free from all restrictions as to foreign residence, travel, or occupation. For professional soldiers the rates cover the present war, but no future war service. No medical examination is required when the proposer has been recently passed as fit for military service.

The scheme of the Office has been extensively advertised, and it may be said to raise several very interesting problems. It has given rise to a considerable amount of discussion. Some of the points arising out of the scheme are as follows:—

1. Whether it is possible to accept, by means of a yearly premium payable during the continuance of the Insurance, a debt which is immediately due to the Office, keeping in view—

(a) That a policy of Life Assurance is not an

obligatory contract, and

(b) That the rate of mortality during the period of the war and for some years afterwards is special.

2. The effect on the With Profit policy-holders of the Office at the first investigation, if the war continues for

any length of time, keeping in view-

(a) That the extra risk, or at all events the bulk of the extra risk, may have been incurred before the date of the first investigation, while—it is assumed—the extra risk is to be paid for by the policy-holders during the continuance of the Insurances, and

(b) That, as already stated, a Life Assurance

policy is not an obligatory contract.

 Whether the medical examination which is a condition of military service is as stringent as the medical examination which is, as a rule, a condition of obtaining a policy of Life Assurance.

4. Whether it is possible to issue indiscriminately a policy which is absolutely free from all restrictions as to

foreign residence, travel, or occupation.

I think it as well to add that since the above was written I learn that the Office has decided to discontinue the scheme.

The explanation given is that during the time the scheme was in operation the Office received as much business as it felt justified in accepting, having regard to the fact that "the total amount must be limited so as not to become an undue proportion of the total business of the Company."

What is called a "£10 War Policy" is issued by another Office for the Navy and Army. The sum assured is payable at the expiration of 15 years or at previous death. The premium payable during the continuance of the war, which is the same for all ages at entry, 18 to 45, is double the premium payable after the termination of the war. Proposals are entertained for any multiple of £10. There is no medical examination.

Another Office is prepared to issue policies for sums not exceeding £1000 to military and naval officers, Territorials, civilian volunteers, and others engaged in home service ashore, age not more than 55, covering the risk of death from all causes except aviation or submarine service during the period of the war, and for three months longer, at a single premium of £4 4s. 0d. per cent. No medical examination is required. As a further benefit, the Office is prepared to allow the policies to be converted at any time within three months of the declaration of peace to policies of not larger amount under any of the Office's ordinary tables at the rate of premium for the age at original date of entry, subject to medical examination—no arrears of premium being chargeable.

As most of the Offices are prepared to accept military and naval officers, Territorials, civilian volunteers, and others engaged in home service ashore, at the ordinary rate of premium, and as the bulk of the forces engaged in home service ashore are comparatively young lives, it is difficult to see the advantage of this kind of policy, unless, of course, the war continues for a very prolonged period. Also, nothing is stated in the prospectus as to the position of the policy-holder in the event of his being called up for active service or in the event of his volunteering for active service. The policy is described as a war policy, but as in its original form it is not expected to include War Risks as generally understood, it might perhaps be said that the title of the policy is not a happy one.

I notice that the French Life Offices are charging for the European War an Extra Premium of 10 per cent. to soldiers

and reservists of regiments of the line, 7 per cent. to Territorials and reserves, and 5 per cent. to the auxiliary branches of the army. If the Extra Premium be not paid, the policy is not forfeited, but in the event of the death of the life assured during the war, or within eight months after the termination of hostilities, the Office pays the reserve value of the policy in lieu of the sum assured. It is reported that the French Offices have decided to reduce the eight months period to three months, also that they have indicated their willingness to return to the lives assured the difference, if any, between the Extra Premiums paid and the amount required to meet the extra risk.

ANNUITY AND INSURANCE SCHEME.

I pass from insurance against War Risks to a consideration of some of the recently published Special Schemes. One Office has a scheme under which in the event of the wife surviving the husband the Office pay an annuity for the remainder of her life. The annuity is payable in half-yearly instalments, the first payment being made immediately after the husband's death. In the event of the wife dying before the husband, his estate will at his death be paid a capital sum. For the policy under the Special Scheme the husband is asked to pay the ordinary premium for a policy to provide the capital sum at his death.

The advantage of the scheme is that it secures a fixed income to the wife should she survive her husband, thus relieving her of all anxiety as to the investment of the Insurance monies and guarding her against any possible loss owing to unfortunate investments. At the same time it secures a substantial capital sum to the husband's estate should he survive his wife.

It will be noticed that for the purposes of the Special Scheme the ordinary Whole Life Assurance is converted into—

- 1. A reversionary annuity payable so long as the female life may survive the male life, and
- 2. A last survivor insurance payable at the death of the male life if he survive the female life.

It is useful to examine the scheme from this point of view-

1. It will be found that if the male life die during a term of years dependent upon the ages of the lives,

leaving a widow in good health, the contract is an excellent one in so far as the annuity allowed by the Special Policy is greater during this period than if the sum assured under the ordinary form of Whole Life Policy were applied to purchase an annuity.

2. If, on the other hand, the male life die during the probationary period, leaving a widow in bad health, it is more than likely that the parties will come badly out of the policy, since there is no provision in the policy for a cash sum in lieu of the annuity.

3. If the male life die after the probationary period leaving a widow, the parties come badly out of the Special Policy as compared with the ordinary form of Whole Life Policy, even if the widow be in good health. It is obvious that after the female life has attained a certain age the sum assured which would have been payable under the ordinary form of policy will provide an annuity for a larger sum than the annuity for the Special Policy.

4. There is another disadvantage of the Special Policy as compared with the ordinary form of policy. After a few years the male life might wish a loan on security of the policy, or might wish to assign his policy. It is clear that a policy of this kind is not

a good security.

Convertible Term Policy.

The Convertible Term Policy gives at trifling cost the benefit of immediate Assurance, leaving the life assured to choose within certain limits his own time for the conversion of the Assurance into a permanent provision, irrespective of what may then be the state of his health.

As a general rule Assurances under the Convertible Term Table can be converted at any time, except during the last five years of the selected term and without further medical examination, to an ordinary Whole Life or Endowment Assurance Policy for the same or any less amount, either with or without profits, at the rate of premium for the age next birthday at which conversion is made. The policy would then rank for all purposes as if effected at the date of conversion. If the Insurance is not converted, the policy expires at the end of the selected term.

Some of the advantages of this scheme are as follows:-

1. It will at once be admitted that a large proportion of persons aged 25 to 30 can form a good idea of the

course of their future income, but it must also be admitted that there is a very large proportion of the same persons who, for some years to come, will be able to save but little from their profession or occupation, but who are certain to have a good income in the years to come if they can only "win through" this period of probation. To such persons Insurance is very necessary, and they have it in the Convertible Term plan. It will be well for the wife and children if they continue to live. But what if they die?

2. It can be used for additional Assurance at a low rate of premium payable until some existing premiums

3. It can be used by a father to provide for his son's education. For example, a father with a son age 6 next birthday could take out a Convertible Policy for a term of 15 years, or say term 20 years. In the event of the death of the father before the son attained age 21, the money could be used for the benefit of the son, while, if the father lived until the son attained age 21, he could, if the policy were taken out for an original term 20 years, either discontinue the policy or continue the policy as a Whole Life or Endowment Assurance by paying from that date the premium at the then age next birthday.

4. It is a good class of policy for the "war time economy."

Many persons who know they should be insured are unable at this time to pay at full premium rates, but would be willing to consider a policy of this kind as a temporary expedient.

5. A Convertible Term Policy is a valuable one at a time like the present when the estates of so many persons are reduced in value on account of the war. A person may be of the opinion that in time his estate will regain its former value, but the uncertainty of life is an element too readily forgotten by those who think that time will bring them all they need. A Short Term Insurance is sometimes suggested, but, as it seems to me, a Convertible Term Policy is a better one for the purpose.

Convertible Partnership Assurance.

Partnership Assurance is capable of being adapted to every case in which the death of a partner would involve pecuniary loss or difficulty. It has the advantage of not being burdensome to individual partners, as the annual cost is comparatively

small, and may be made a charge on the business, like rent, fire insurance, or wages.

Most Offices are prepared at any time during the currency of the Assurance to allow the partners to convert the policy into separate Assurances on the individual lives for, in each case, an exact proportion of the sum assured. This valuable option meets the case of a dissolution of partnership, as the Assurance can be divided among the partners, leaving each one free to continue his proportion, or to surrender, or to otherwise deal with it as he thinks best. The terms of conversion are fixed at the outset, as the annual premiums on the converted policies are calculated at the rates corresponding to the ages of the partners at entry upon the original Insurance.

Partnership Policies covering a term of, say, five years may be effected at a very low rate of premium, with the option of converting them at any time during that term into either (a) ordinary Partnership Policies covering the whole term of the partners' joint lives, or (b) separate Assurances on the individual lives, the premium on the converted policies being in either event the tabular rates for the partners' ages at the date of conversion.

The converted policies need not be Whole Life Assurances, as the option admits of the Limited Payment or Endowment Assurance plans (either with or without profits) being selected, as may be preferred.

HALF CREDIT POLICY.

There are persons who prefer the Half Credit plan to the Convertible Term plan.

Before I go further I might say that until a short time ago I was under the impression that the Half Credit plan was a modern system of Life Assurance, but in glancing over a book on Life Assurance dated April, 1849, I came across the following:—

"For the information of those not acquainted with the exact working of the Half Credit System, it may be desirable to state that formerly Assurance on life could only be effected by an equal rate of premium. For example:—A person at the age of 30 wishing to assure for £1000, to be paid to his family at his decease, the premium would be £21 9s. 2d. annually; whilst, according to the Half Credit System, he would be

enabled to secure the same benefit to his family, for five years to come, by the payment of £21 9s. 2d. By this arrangement a party is enabled, for five years, to assure a double amount by

the same payment.

"Thus, suppose the payment by the Half Premium plan for five years for an Assurance of £2000 to be £20, the first payment by the Half Premium plan would be £10 10s. 0d., the second yearly payment, £11; the third, £11 10s. 0d; the fourth, £12; the fifth, £12 10s. 0d. When the sixth payment becomes due the £50 which has been retained may, at the option of Assured, either then be liquidated, or paid by instalments, or remain at interest at the rate of £5 per cent. per annum until the policy shall become a claim. In the former the future premiums will be £20, in the latter, £22 10s. 0d.

"This arrangement is most useful, as the Assurance may be relinquished at any time without payment of the arrears of premiums; this method enables a party to assure for the first five years at little more than half the usual rate, and to dis-

continue a policy at about half the usual sacrifice."

I confess that I am unable to follow the premiums quoted in the extract, but the idea of the Half Credit System is on the whole fairly clearly explained. The advantages of the Half Credit System may be said to be—

First, the life assured is enabled to assure straight away for a substantial sum assured and at a moderate payment.

Second, the policy, if effected with profits, participates from the outset and on the full sum assured.

It is customary to ask for interest in advance, and this is fair and reasonable, since a loan is being granted on security of the policy before, strictly speaking, the policy has acquired a surrender value.

It may be remarked in passing that the life assured under the Half Credit plan is only entitled to deduct the one-half of the premium from his assessment to Income Tax during the period that only one-half of the premium is payable.

OPTION POLICY.

Most Offices issue in some form or other what are called Option Policies. For example, a person may in one Office secure—

(a) A sum assured payable in the event of death before age 60.

(b) The choice at age 60 of any one of the following benefits:—

1. A cash payment.

2. A fully paid-up policy payable at death and a cash payment.

3. A fully paid-up policy payable at death and an annuity.

4. An annuity and a cash payment.

5. An annuity.

6. An annuity for, say, 15 years certain and a

cash payment.

7. A fully paid-up policy payable at death, subject to evidence of good health satisfactory to the Office.

All the figures are stated in the prospectus, and are guaran-

teed in the policy.

Now all this is very imposing, but at the risk of "giving away" my profession I would like to let you into the inner workings of the scheme.

Suppose the life is 40 next birthday, the Option Policy referred to is merely a combination of two policies, as follows:—

- A Whole Life Assurance, premiums to cease after age 60, and
- 2. An Endowment Assurance payable at age 60 or previous death.

For example—

(a) The sum assured payable in the event of death before age 60 is the sum assured under the two policies.

(b) 1. The cash payment at age 60 is the surrender value of the fully paid-up Whole Life Policy plus the sum assured by the Endowment Assurance Policy.

2. The fully paid-up Policy payable at death is the sum assured under the Whole Life by Limited Payments Policy, and the cash payment is the sum assured by the Endowment Assurance Policy.

3. The fully paid-up Policy payable at death is the sum assured under the Whole Life by Limited Payments Policy, and the annuity is the annuity that can be provided by the sum assured under the Endowment Assurance Policy.

And so on.

The question arises whether it would not be better for the assured to take out two policies with which, as occasion or con-

venience required, he could deal separately. The only objection to this arrangement is that owing to the rate of annuity for each £100 of purchase money having been decreased or the rate of premium per cent. for the Assurances having been increased, the benefits to be obtained at the maturity of the Endowment Assurance Policy might not be so good as in the Special Option Policy.

5 PER CENT. DEBENTURE POLICY.

The special feature of this kind of policy is the arrangement by which the Office is prepared to undertake the responsibility of investing the sum assured when it becomes payable, and to guarantee to pay 5 per cent. per annum thereon for, say, 20 years, the sum assured itself being payable at the end of that period.

An arrangement of this kind is in many cases a great boon. It does away with the risk of losing, by an unlucky investment, what may be the savings of a lifetime, while those who benefit by the policy are spared much trouble and anxiety.

At the same time I sometimes think that this is a misleading kind of policy. The "man in the street" is apt to think that he is only paying the premium for, say, an ordinary Whole Life Policy, and that the Office, without any increase in the ordinary premium, is undertaking "the responsibility of investing the sum assured when it becomes payable" and is prepared "to guarantee to pay 5 per cent. per annum thereon for, say, 20 years, the sum assured itself being payable at the end of that period." As if any Insurance Office, or, for that part of it, any business concern, could afford to give something for nothing!

As a matter of fact the method of arriving at the premium for the Special Policy is roughly as follows:—The Office assumes that it will realise a certain rate of interest, say 3 per cent. for 20 years after the death of the life assured. This means that the Office, in respect of a sum assured of £1000, will make £30 at the end of each year during these 20 years. Now the Office has agreed to pay £50 at the end of each year for 20 years, being 5 per cent. on the sum assured. The Office, therefore, charges the premium not for a sum assured of £1000, but for a sum assured of £1000 plus the present value of an

annuity-certain of £20 for 20 years. The Office usually guarantees that when the policy monies become payable, it will, if so requested in writing by all parties interested in the policy, pay, in lieu of each £1000 of sum assured with the 5 per cent. Debenture benefit, a fixed sum.

Instalment Policy.

Under this form of policy the sum assured of, say, £1000 is payable by 20 equal annual instalments of £50, the first being payable at the death of the life assured.

As in the case of the 5 per Cent. Debenture Policy, this kind of policy is merely a modification of the ordinary Whole Life or Endowment Assurance Policy.

It is clear that if the Office is to pay £50 a year for 20 years as from the death of the life assured, it will be sufficient if the Office has in hand at the death of the life assured a sum of, say, £750, in which case the premium payable for the Special Policy will be the premium payable for an ordinary assurance of £750.

CONTINUOUS INSTALMENT POLICY.

A further development of the Instalment Policy consists in the guarantee that the instalments will not only be payable during a fixed term of years, but will be continued during the future lifetime of some nominated beneficiary.

The general idea is that by this means a husband can provide a definite income for his widow from the date of his death running for 20 years certain and continuing so long thereafter as she may live. By having the instalments guaranteed for 20 years, provision is made for any children until they approach majority and can look after themselves, even although the widow should die soon after her husband.

ESTATE DUTY POLICY.

It is not usual to look upon an Estate Duty Policy as an Option Policy, and yet, as it seems to me, it should be considered in this connection.

Under an Estate Duty Policy facilities are offered by the Offices to enable the representatives of policy-holders to meet

Estate Duties. This is provided for by Assurances payable at the death of owners of personal and landed property. In order to meet the convenience of the representatives of deceased policyholders the Office usually agrees that it will, at the request of the person entitled to obtain administration in any Court of the United Kingdom, pay to the proper authority the Estate Duty up to any amount the policy will cover, on receiving a satisfactory discharge from the persons so entitled.

It is at a time like this that the value of the Estate Duty Policy can be properly appreciated. It is well known that under existing conditions it is difficult to realise shares or other property unless at considerable sacrifice, and in some cases it is impossible to realise upon any terms.

The advantage of having a fixed sum in ready cash available at death is an important one, and if the policy be taken out with the Estate Duty privileges, this would seem to give exactly the peace of mind which is essential to every investor.

It should be kept in view that any estate gifted within three years of the death of the donor is liable to Estate Duty. For such cases a Short Term Insurance for that period should be taken out.

It may also be worth while to emphasise that in many cases the premium on an Estate Duty Policy may be sufficient to bring an income below £3000, and in this way save the supertax. Life Assurance is thus placed in a privileged position as compared with other forms of provision. This saving in Income Tax due to rebate allowed would alone be considerable.

I have often thought that more might be done by the State with a view to encourage the practice of Life Assurance and to protect persons assured.

Just as a person is allowed an abatement of Income Tax on premiums paid for Life Assurance up to one-sixth of his income, so, as it seems to me, an abatement of Estate Duty should be allowed on the amount payable under Life Assurance policies up to a certain sum assured or up to a fixed proportion of the estate.

I also think that the Offices should have power under certain well-defined conditions to pay the amount of a policy to the widow without production of confirmation, probate, or letters of administration, if the policy at the date of death was the property of the husband. If this be considered too sweeping

an alteration in the law, the privilege might be granted for an amount not exceeding a certain sum assured. It would, of course, be understood that the widow must apply the monies in due course of administration, and that the Office would not be bound to see to the application of the monies.

I take this opportunity to say that in my opinion policies of Life Assurance should under certain conditions be protected from the operations of the Bankruptcy Acts. I would not, of course, agree to pay the surrender value of a policy to an undischarged bankrupt or to his assignee unless the policy had been assigned prior to the bankruptcy. If it were found impossible to continue the payments under the policy after the bankruptcy of the life assured, a Paid-up Policy might be granted for the benefit only of the personal representative of the Life Assured, and in no case for the assignee of the life assured unless the policy had been assigned prior to the bankruptcy.

It must not be overlooked that Life Assurance is of importance to the State. In the words of Lord Brougham:—
"Associations for insurance of lives are to be ranked among the very noblest institutions of civilised society, and their usefulness can be attested by thousands of happy and independent families rescued by their means from the bitterness of poverty and the degradation of charity."

Some of the above privileges are authorised by the several States in Australia to Companies doing business within the particular State.

ADULT ENDOWMENT.

The ordinary form of Adult Endowment offers a safe investment with a fair return on the premiums paid if the life survive to the end of the period. It is issued by at least one Office to unmarried persons in a somewhat attractive form.

If the policy-holder survive the term of the Endowment without having married, he receives the sum assured with bonuses. If the policy-holder die unmarried before the end of the term, the whole of the premiums are returned to his representatives in lieu of the sum assured and bonus.

On the marriage of the life assured the policy will automatically be converted into an ordinary Endowment Assurance

(under which the sum assured and bonuses are payable at the end of the selected term or at death if it should occur previously). The annual premium after conversion will be the same as that of an ordinary Endowment Assurance for the original age at entry, and no further medical examination will be required when this change takes place.

The advantage of this kind of policy is that the unmarried person is not required to spend money on Life Assurance until the need for it has arisen by the married state having been entered. At the same time the "saving" in premium is so very little that it would undoubtedly be to the advantage of the person to take out in a first-class Office an Endowment Assurance Policy with profits rather than an Adult Endowment Policy.

An objection to the Adult Endowment Policy is that for this kind of policy the life assured is not entitled to claim an abatement of Income Tax. For the purposes of Income Tax abatement the premium payable under an Adult Endowment Policy is not a premium paid for Life Assurance.

Double Endowment Assurance.

The Double Endowment Assurance is a combination of Endowment Assurance and Adult Endowment.

Just as, in my opinion, a person who is able to pass the necessary medical examination should take out in a good Office an Endowment Assurance with profits rather than an Adult Endowment, so, as it seems to me, a person who can pass the necessary medical tests should effect an ordinary Endowment Assurance rather than a Double Endowment Assurance.

If the ordinary Endowment Assurance be taken out with profits in a first-class Office it will be found that the Endowment Assurance gives a better return than the Double Endowment Assurance.

It is stated in the prospectuses of some of the Offices that it is often possible to accept under this scheme at tabular rates lives which would call for rating up under the ordinary tables in consequence of unfavourable personal condition or family history, hazardous occupation or residence in foreign climates beyond the prescribed limits. The reason for this is as follows:—A Double Endowment Assurance for £100/£200 is,

as already stated, a combination of an Endowment Assurance for £100 and an Adult Endowment for £100, or, to put it in another way, it is a combination of a Short Term Insurance for £100 and an Adult Endowment for £200. Now, the premium for a Short Term Insurance increases with the increase in the age, since the risk of death increases with the age. On the other hand, the premium for an Adult Endowment decreases with the age, since the risk of the life surviving a term of years decreases with the age. Hence it is possible that the decrease in the premium for the Adult Endowment Policy for £200 may fully counterbalance the increase in the Short Term Insurance premium for £100, but it must not be assumed that this will always be the case. It is easy to imagine a case where the premium required for the Short Term Insurance of £100 would be greater than the ordinary premium for a Double Endowment Assurance of £100/£200.

On account of the double sum assured at maturity, the Double Endowment Assurance is frequently used for the purpose of making up an Option Policy. The options allowed by one of the Offices are as follows:—

(a) If option be exercised on attainment of specified age—

1. Payment in cash, or

2. Paid-up policy payable at death, or

3. Pension payable half-yearly.

(b) If option be exercised five years previous to attain-

ment of specified age—

4. A larger paid-up policy payable at death after

specified age, or

5. A larger pension payable half-yearly on attainment of specified age.

(c) If option be exercised on issue of policy—

6. A still larger paid-up policy payable at death after specified age, or

7. A still larger pension payable half-yearly on attainment of specified age.

It is useful to keep in view that the policy-holder is entitled to a rebate of Income Tax in respect of the whole of the Double Endowment Assurance premium and not merely in respect of the Temporary Insurance portion of the premium, as was contended by the Crown in a recent case.

SPECIAL ANNUITY SCHEME.

One Office has a scheme whereby the payments of annuity are continued for 10 years after death at any time. In the event of death before the specified age an annuity is payable certainly for 10 years. On the attainment of the specified age the deferred annuity is entered upon, and is payable during the remainder of life and for 10 years after death. On attaining the specified age the following options are given:—

- 1. A cash payment in lieu of the payments of annuity, an increased payment being made on satisfactory evidence of health.
- 2. A larger payment during life only.

Or surrender the annuity payable for 10 years certain on the death of the annuitant and take

3. A cash payment.

4. A larger annuity payable for a shorter period than 10 years certain after death.

5. A smaller annuity payable for a longer period than 10 years after death.

6. An annuity payable during the life of another person.

Option 3 provides a sum for Death Duties or other purposes. Option 4 provides the largest possible sum to dependants who shall be self-supporting in less than 10 years.

Option 5 provides a smaller sum for more than 10 years to dependents who shall not be self-supporting in 10 years.

Option 6 provides an annuity for a widow or daughter or both.

Adaptable Life Assurance.

One Office issues a policy which gives at the outset, like any ordinary Whole Life Policy without profits, the largest amount of absolute Assurance protection for a given amount of yearly premium, and also confers on the policy-holder the privilege of making additional payments whenever he likes, and in practically any amounts he likes, for the purpose of:—

- (a) Limiting the time during which premiums are payable.
- (b) Providing for payment of the sum assured should the policy-holder survive a specified date.

The terms on which such additional payments may be made are fixed from the outset and are embodied in the contract. The payments may be made as often as a policy-holder likes, or as seldom as he likes, the payment of one additional amount in no way binding him to pay any further amount. Also the policy-holder can at any time, by increasing his annual premium, change his policy from "without profits" to "with profits."

DEFERRED ENDOWMENT ASSURANCE WITH BONUS PAYABLE AT MARRIAGE.

Quite recently one of the Offices has issued particulars of a Deferred Endowment Assurance for the benefit of a child. The unique feature of the Assurance provided by this Office is that the original sum is increased by a guaranteed bonus thereon for each year that a full premium is paid, and in the event of the child marrying whether before or after attaining age 21 the amount of the bonuses accrued to date of marriage will be immediately payable.

Except as to any bonuses already paid on marriage the policy matures on the child attaining a selected age or previously dying having attained age 21. In the event of the child not attaining age 21 no benefits are payable under the policy (other than bonuses which may have become payable on marriage), but the premiums will be returned in full.

It must at once be admitted that the scheme is of an ingenious nature. On the principle that the person must marry if he is to get the better of the Insurance Company, the scheme, if it does nothing else, should assist to increase the rate of marriage in the community.

If I might be allowed to make a suggestion to this enterprising Company, it would be as follows:—

1. That on the birth of the first child of the life assured the bonuses accrued from date of marriage should be immediately payable.

2. In the same way, on the birth of any subsequent children the bonus accrued from the date of birth of the previous child should be immediately payable.

I feel sure that on the principle that it is always fair to circumvent an Insurance Company, a scheme of this kind

would assist to improve the birth rate of the community. The premiums would, of course, require to be increased to provide for the additional benefits.

DEFERRED ASSURANCE FOR CHILDREN.

A special feature of the policies issued by several of the Offices is that a policy issued as a Deferred Whole Life Policy carries a number of guaranteed options, which enable it to be converted on attainment of the deferred age to the class of policy which best suits the circumstances of the policy-holder. For example:—

1. The life assured may continue payment of premiums and change to an Endowment Assurance with profits payable at death or age 60 or payable at death or age 55 or payable at death or age 50.

2. The assured may discontinue payment of premiums and take—

(a) Cash, or

(b) A paid-up policy payable at death, or payable at age 60 or previous death or payable at age 55 or previous death or payable at age 50 or previous death.

By the payment of a small addition to the yearly premium it may be arranged that should the parent die while the child is under age no further premiums will be payable until the child attains the age of 21.

EDUCATIONAL ENDOWMENT ASSURANCE PLAN.

An objection to the Educational Endowment Plan is that if the parent die during the probationary period leaving a widow and young children, it is often of the greatest importance that the widow should be provided with ready money, and the Educational Endowment Plan only provides for the sum assured becoming payable if the child survive the agreed-upon age. It is only the premiums which (in the case of the modified plan) are made to cease on the death of the parent. Another point is that the premiums paid under Educational Endowment Policies do not entitle the parent to rank for Income Tax rebate. The Inland Revenue will only make this allowance if the benefits begin immediately the parent dies.

With a view to getting over the difficulty, most Offices issue policies under what is known as the Educational Endowment Assurance Plan. Under this plan a series of Endowment Assurances is issued on the life of the parent, the sum assured being payable during a period of years commencing at the end of a term of years if the parent survive or at the previous death of the parent, the premiums being payable until the sum assured is entered upon. If the parent and the child survive to the end of the term of years, the sum assured may be utilised for the child's education. If the parent die, the sum assured is payable in respect of those policies which have not matured. If the child die, it does not affect the policies at all.

Assurance Without Medical Examination.

Rightly or wrongly, there is a tendency in favour of schemes without medical examination.

One Office which boasts of its satisfactory experience is prepared to entertain proposals on lives up to the age of 50 years for Whole Life or Endowment Assurances at the tabular rates of premium. The policy effected without medical examination receives the same benefits and advantages as that effected with medical examination, subject only to the two following provisions:—

1. One-third only of the sum assured is secured if the death of the life assured occur during the first three months from the date of the commencement of the Assurance; two-thirds if the death occur during the second three months; and the full amount on a claim occurring thereafter. If, however, death occur from accident during the first six months the full sum assured is secured.

2. No assignment of the policy is allowed during the first two years from the date of the commencement of

the Assurance.

At least one Office is prepared to accept proposals under any of the ordinary tables, an extra premium being charged during the first three years of the policy to cover any extra risk involved. The extra premium charged by this Office is at the rate of £1 per cent. of sum assured on payment of the first year's premium, and 10s. per cent. of sum assured on payment of the second and third years' premiums respectively.

A few Offices have a system of Short Term Policies for three or six months without medical examination. The policies are intended to cover persons proceeding to Canada, United States, India, etc. The policies insure against death from any cause (except suicide) and are not to be confused with ordinary Accident Insurance Policies.

One Office is prepared to issue at the ordinary rate policies without medical examination under the Endowment Assurance plan With Profits for any less number of years than 15. The full sum assured is secured from the commencement. Another Office has a scheme of Single Payment Assurance without medical examination. In the event of death during the first year the single payment, with interest at the rate of $3\frac{1}{4}$ per cent. is payable in lieu of the sum assured.

Several Offices are willing to consider proposals without medical examination under the Double Endowment Assurance plan.

It is not, of course, to be inferred that any person may insure without medical examination. It is, for example, pointed out by one Office that no application will be received without medical examination when the proposer has been previously declined or accepted at an extra premium (except for residence) by this or any other Office, or if the proposer's age exceed 50, or if he has suffered from rheumatic fever or any affection of the heart or kidneys, or if he is engaged in certain unhealthy occupations, such as plumbing, mining, stone-hewing, marine engineering, or in the sale of alcoholic beverages.

Quite recently one of the Offices has intimated to its connections that for the future it will be prepared to consider all proposals on lives not exceeding 50 years of age for sums not exceeding £150 without medical examination in cases where the information in the proposal form presents no difficulty. A special proposal form is required for these cases. In the circular giving particulars of the new arrangement, attention is drawn to the fact that, "in connection with these without medical examination proposals two things are very important: one is that the information given by the proposer must be very full, complete, and accurate, as the validity of the Assurance will depend on the sufficiency and correctness of the statements made in the proposal form; the other is that it is exceedingly desirable that the proposal form should always be filled up throughout by the proposer in his own handwriting."

Proposals for Assurance on the lives of persons already assured on ordinary terms will in some Offices be considered without further medical examination. The conditions vary in the different Offices. The conditions in one Office are as follows:—

- 1. The amount to be assured must not exceed the existing Assurance on the life.
- 2. The age of the proposer is not to exceed 50.
- 3. The new proposal is to be made within seven years of the date of the previous medical examination when the current age of the proposer does not exceed 40, or within five years when the current age of the proposer is between 40 and 50.

CUSTODY OF SUMS ASSURED.

A benefit which is offered by some of the Offices is as follows:—Persons entitled either by death or survivance to payment of a policy and who may have difficulty in suitably investing the amount, may leave it (or any portion not less than £100) on deposit with the Office at a fixed rate of interest for any term not exceeding 20 years; such deposit to be repayable in one sum or by instalments; either arrangement to be terminable by the depositor on three months' notice. One Office makes the following offer to its assured under matured Endowment Assurances:—Policy monies may be left on deposit, upon which the Office will pay interest half-yearly at a rate lower by 15s. per cent. per annum than that earned by the Office's funds in the preceding year. Deposits may be withdrawn at eight days' notice, or one month's notice if the amount exceeds £1000.

A considerable amount of discussion has taken place on the subject of "Assurance Banking," and the opinions expressed are not always favourable to the scheme. The writer of the Insurance Notes in "The Financial Times" of 24th July, 1914, sums up the case against as follows:—

"The more we consider the recent offer by a Life Office to take practically call loans from the public and pay for the money 15s. per cent. interest below the rate which the Office earned the year before, the worse we like it. At present the offer is confined to the proceeds of matured policies, but this in no way changes the nature of the transaction, which is

simply a borrowing at a high rate of interest to make a small profit by lending it or investing it at a still higher rate. This is bankers' business, and were the new system to be greatly extended it would adversely affect the whole machinery by which the world's commerce is carried on. Apart from this, however, we do not think that, on a long view, the Assurance Companies would themselves reap the benefit which is hoped One of the chief difficulties and the greatest anxieties of Directors is to find safe and profitable investment for constantly increasing funds. The difficulty would be still greater and the anxiety more were it not that the claims on matured contracts absorb a large proportion of the premium income, and thus a progressive concern has only to deal with the difference between income and outgo. This great borrowing plan more or less screws down the safety valve, and were it to spread the Boards of many Companies would every week have more investments to seek in a market which may not always be so fully stocked as at present. Further, and apart from the influence which this might have on interest rates, it must be noted that it would be in times of public financial stress that wholesale withdrawals would be most likely to take place, and if sales of stock had to be made to meet the demands of depositors there might. easily be a loss of principal more than equal to all the profit of years. So far as the thing has yet gone the evil and the danger are so small as to be negligible, but every argument for the present step would apply to wholesale outside borrowing, and wisdom lies in carefully considering the probable or possible result."

It will be noticed that this opinion was expressed before the outbreak of the war. It is interesting to consider the position of any Office having such a scheme if, during the war, there had been wholesale withdrawals of policy monies which had been left on deposit.

ENDOWMENT ASSURANCE OPTIONS.

Policy-holders in most Offices have the following options during the period of the Endowment Assurance:—

1. Should the policy-holder wish to discontinue payment of the premium after the premium has been paid for, say, two or three years, he can obtain a Paid-up Policy. The amount of the Paid-up Policy is, as a rule, guaranteed by the Office.

2. Should he desire to surrender the policy after the same probationary period, he would receive the cash surrender value. The minimum amount of the

surrender value of the original sum assured or of the original sum assured and bonus is sometimes

guaranteed in the policy.

3. Should he desire to borrow, the Office offers a loan, which usually bears a fixed proportion to the surrender value. When the title is in order, the loan is given free of charge to the policy-holder except

for the stamp duty on the bond.

4. Should the policy-holder be unable to pay the premium, the Assurance might continue by the Company advancing the premium as a debt and maintaining the policy in force from year to year. If the policy were with profits, the policy would still continue to participate in the full profits of the Office, and at death or maturity the sum assured and bonus, less the debt with interest, would be paid.

It is sometimes overlooked that if the policy is taken out with profits in a first-class Office the premiums paid during the first five years of a 20 years' Endowment Assurance might be sufficient to keep the policy in force for the remaining 15 years. In case of death during the 15 years or at maturity of the Endowment Assurance, the full sum assured and bonus, less the debt, would be payable.

Bonus Options.

Bonus additions may, as a rule, be commuted at the option of the assured for-

1. An immediate cash payment of the present value of the

reversionary bonus, or

2. A reduction of premium either until the next distribution of profits or for the remainder of the existence of the Assurance. In some Offices, if the policyholder elects at the outset to have the bonuses applied in reduction of future premiums, better terms of reduction are given.

In some of the Offices the holders have the option, instead of taking the profits in the form of bonus additions to the sum assured, of applying them to make the sum assured payable to themselves during lifetime at as early an age as the profits will admit of. Such an option is more especially valuable if the policy be taken out under the Whole Life Plan, with premiums payable for so many years only. The bonus may also be applied to limit the number of premiums payable.

I might perhaps be allowed to say that, in my opinion, a policy-holder should always be advised not to surrender his bonus. This is more especially the case in a Compound Bonus Office, since, if the assured surrenders his bonus he is not only surrendering his existing bonus but also the right to future bonus upon the bonus. If for any reason the assured wishes a cash payment, he should take a loan upon security of the policy. If the title of the assured be in order the loan can, as a rule, be obtained without expense save for the stamp duty on the bond. Also, once the bonus is surrendered it cannot be reinstated, while, if the loan be taken, it can, as a rule, be repaid in whole or in part at any time that suits the convenience of the assured.

FINANCIAL CLASSES OF LIFE INSURANCE.

A study of the Board of Trade Returns for the years 1888 and 1913 shows that there is a remarkable increase in what might be called the financial classes of Life Insurance, such as Contingency, Short Term, Issue, etc., Insurance, which shows that Life Insurance is better understood in 1913 than in 1888, and that the value of a Life Insurance policy as a means of perfecting a security is now being appreciated. It may be useful to mention some of the uses of those Financial Policies.

"A" by his will left certain funds upon trust that the monies should be paid to his wife during her life, and after her death the capital should then be divided equally among such of his children as should then be alive. "A" died, leaving two children, of whom "B" is one. "B" wishes to raise a loan on security of his contingent reversion. Assuming that the funds are satisfactorily invested and that his title is in order, "B" will have no difficulty in obtaining a loan, provided he insures his life against that of his mother.

"A," age 22 next birthday, is entitled under the will of his father to a sum of £5000 when he attains the age of 25. He desires a loan of £1000. He should have no difficulty in obtaining the loan on security of the reversion and of a Short Term Policy to be taken out on his life, the sum assured to be payable in case he dies before age 25.

It might perhaps be added that any person who is entitled to a contingent reversion, whether the contingency is that of surviving another life or of attaining a given age, should insure his life in order to convert the contingent reversion into what is called an absolute reversion. For example, under a Deferred Bonus Policy a bonus is declared at, say, 31st December, 1914, payable at the death of the life assured after the 31st December, 1916. The assured should at least take out a Short Term Policy for the amount of the bonus, the sum assured to be payable in event of the death of the life assured before the 31st December, 1916. Or, again, a person who took out an Endowment Assurance Policy with bonuses payable only at maturity might, a few years before maturity, be approached to take out a Short Term Policy for the amount of the bonus. In this way the bonus would be converted from a Pure Endowment into an Endowment Assurance. In the same way, a person who, say, 15 years ago, effected a Double Endowment Assurance for £1000/£2000 for an original term of 20 years, would be well advised to take out a Short Term Policy for a sum insured of £1000, payable in case of his death during the remaining five In this way the Double Endowment Assurance for £1000/£2000 would be converted into an ordinary Endowment Assurance for £2000.

A person, "A," wishes to obtain from "B" a loan of £1000, to be repaid by ten equal annual instalments each of £100, interest to be paid in advance at the beginning of each year. "B" is satisfied that if "A" lives the loan will be duly repaid, but what if "A" die before the loan is repaid? The difficulty is got over by "B" taking out on "A's" life a decreasing Short Term Insurance, the sum insured during the first year to be £1000, and to decrease by £100 at the end of each year for ten years.

Many persons purchase property through a Building Society for their own occupation or by way of investment. The arrangement with the Building Society is that the borrower is to make a certain number of comparatively small repayments, which include principal and interest. Such an arrangement is a very convenient means of effecting savings and making a provision for the future, so long as the borrower continues in good health, but what if he die? Every such borrower should be advised to take out at least a decreasing Short Term Insurance for a sum assured corresponding for any year to the amount required to redeem the mortgaged property.

A sum of money falls to be divided at the death of "B" among the children of "B" that he may leave surviving by his present or by any future wife. "A," the only child of the marriage, wishes to obtain a loan on security of his interest. There is perhaps no chance of any further issue by the present marriage, but the present wife of "B" may predecease "B," in which case "B" might re-marry and have further children. The difficulty is got over by an Issue Policy.

"A" is entitled to an annuity (sometimes termed a life-interest) during his lifetime, and wishes to obtain a loan on security of the life-interest. It will be necessary for "A" to insure his life for such a sum as will protect the lender in case of his death. A life-interest and a policy of Life Assurance form an excellent security, while a life-interest alone is not a good security.

It sometimes happens that a person entitled to an annuity after the death of a relative would like to have the matter put on a permanent footing in such a way that, instead of the annuity being payable during his lifetime after the death of the relative, he should receive a smaller annuity payable during his entire lifetime. Provided the person is an insurable life, this may be arranged by selling a portion of the reversionary life-interest and investing the proceeds in an annuity payable during the joint lives of himself and the relative. Such a scheme is applicable to the case of a person whose expectations justify him in occupying a position or undertaking responsibilities for which his present income is inadequate.

Life Assurance in some form or other is universally applicable. The honourable husband can in this way secure the terms of a Marriage Settlement. Creditors can protect themselves against loss by the death of the debtor. The holder of a lease dependent upon a life or lives can by this means provide a fund to meet the fines of renewal, and so on.

RE SPECIAL SCHEMES GENERALLY.

There is perhaps a tendency in modern Life Assurance to get away from the old-fashioned Whole Life and Endowment Assurance to what are termed "Special Schemes."

I do not deny that there are some excellent Special Schemes,

each of which may be said to suit exactly the requirements of a certain class of proposer. At the same time I do wish to say—

First, that in the Insurance Market of to-day there are, in my opinion, certain so-called Special Schemes which are so complicated in themselves and so very different from other Special Schemes that competition is practically impossible. I have in mind some so-called Special Schemes which are difficult even for the experienced Insurance Official to understand, and

Second, that in many cases when a Special Scheme is selected by the proposer he would have been much better advised to have taken out an ordinary Partici-

pating Policy.

I was reading, some little time ago, a very interesting article in "Moody's Magazine," entitled "The Co-operative Plan applied to Systematic Bank Deposits with Life Insurance Protection."

In the article the writer, Mr. W. W. Smith, advised his readers to take out an ordinary Whole Life Policy by uniform premiums, and to deposit "in a Bank or Trust Company" the difference between the ordinary Whole Life Premium and the premium for the same policy by limited payments or for an Endowment Assurance. I am not sure that I agree with this opinion, for the following reasons:—

1. An objection to the ordinary Whole Life Policy by uniform premiums is that the assured is asked to pay premiums after the earning years may be said

to have ceased.

2. If the person invest his surplus savings in an Endowment Assurance he will be entitled to an abatement of Income Tax on the whole of the premium (up to one-sixth of his income), and not merely on the ordinary Whole Life premium. A Life Assurance policy is the only investment in the world carrying such a privilege, and every £1 of deduction allowed is obviously a Government grant towards the Insurance premium.

3. An Insurance Company should be expected to do better for the investor than the average Bank can ever hope to do, keeping in view that the so-called surplus savings will not in an average case be considerable. As Dr. Farr has very well put it:—
"Life Insurance Companies not only undertake the equalisation of life, but also the return of the sums

invested, with compound interest. They are capitalists constantly looking out for long investments, and well organised to deal profitably in securities."

4. If the person take out an Endowment Assurance Policy he will, in the majority of cases, make an effort to pay the premiums as these fall due, while if a portion of his savings be deposited "in a Bank or Trust Company" the investor may or may not continue to save in this way. What is worse, he may decide to withdraw part or the whole of his savings from the Bank or Trust Company either for his own personal use or for the purpose of an investment which may or may not turn out a success.

I sometimes wonder whether, in canvassing for Life Assurance business, we keep before us the many uses of an Endowment Assurance Policy. Some of these are as follows:—

1. It may be used to provide for a person's old age or for

his previous death.

2. It may be used to ensure the education or to provide for the advancement in life of a son or daughter. It has the advantage over a Child's Endowment Policy that the proposer is entitled to claim the abatement of Income Tax.

3. It may be used for the purpose of house purchase. A loan is taken on security of a property and of an Endowment Assurance Policy. The policy provides for the repayment of the loan at the end of the term of years or at the previous death of the borrower. In making up his return for Income Tax purposes a borrower under this scheme is, of course, entitled to deduct the sum representing the Life

Assurance element in the transaction.

Perhaps, however, the chief argument in favour of the Endowment Assurance Policy is that it compels a person to save. A person will meet an Insurance payment when he will save in no other way. It is one of the safest means of investment. There is no uncertainty, no depreciation, no possibility of loss, and if the policy be taken out with profits it is an investment that increases in amount with each premium paid. "It is a strange anomaly that men should be careful to insure their houses, their furniture, their ships, their merchandise, and yet neglect to insure their lives, surely the most

important of all to their families, and far more subject to loss."

METHODS BY WHICH POLICY MAY BE KEPT IN FORCE.

If I might be allowed to say so, I would urge the Inspector to make himself acquainted with the different methods by which a policy may be maintained in force.

1. It may be that under the conditions of the policy, if the premium is not paid during the days of grace, and if the policy carries a surrender value of not less than one year's premium, it is kept in force until the expiry of, say, thirteen calendar months from the last due date, subject to a charge in favour of the Company of the premium or premiums in arrear and interest thereon.

2. If the policy has a sufficient surrender value, the premium might be advanced by the Office on security of the policy, assuming, of course, that the

title of the applicant is in order.

3. If the assured is unwilling to borrow on security of the policy, and the policy is with profits, the cash value of the bonus or part of the bonus might be made use of for the purpose of the premium payment.

4. If the premium be payable yearly, the payments might be made half-yearly or quarterly, or if the premiums are payable half-yearly, the payments might be

made quarterly.

5. It may be that the date at which the premium is due is inconvenient and that some other date would be more convenient, in which case the Office would no doubt be willing to accept a proportionate payment for the period from the inconvenient to the convenient date.

 If the policy has not acquired a surrender value or a sufficient surrender value, the Office might be willing, in consideration of a fine, to extend the

days of grace.

7. If the assured be unable to keep the policy in force for the full sum assured he may be in the position to continue the policy for a portion of the sum assured.

If the assured is quite unable to continue the policy in force, it may not be to his advantage that he should be pressed to continue the policy, but even in this case a Paid-up Policy is often a preferable arrangement in the interests of the assured.

It is sometimes assumed by the assured that if he be unable to continue the premium payments he must of necessity lose all his past payments, and while it is obviously in the interests of the assured himself that he should be induced to make sacrifices for the purpose of the premium payments, it is advisable for the Inspector to be in the position to explain the whole of the contract to the assured.

METHODS OF DEALING WITH UNDER-AVERAGE LIVES.

I would like, for the sake of the Junior Inspector, to mention some of the methods of dealing with under-average risks.

 If the proposal is accepted at an Extra Premium under the Whole Life plan by uniform premiums, it may be possible to have the case accepted upon easier terms if the premiums be payable for so many years only or if the table be altered to an Endowment Assurance.

2. If the Extra Premium is still "prohibitive" to the proposer, the table might be altered to a Double Endowment Assurance, under which plan the Extra Premium will certainly be less than under the

Endowment Assurance plan.

3. If the proposer will not pay an Extra Premium, he may be willing to take out the policy under the Contingent Debt plan. This plan consists in issuing the policy at the ordinary rate of premium, but making a temporary deduction from the sum assured in lieu of Extra Premium. The deduction may be either constant during the term of the "expectation" in the case of Whole Life Assurance, or during the term of the endowment in the case of the Endowment Assurance, or it may commence at a higher figure and fall by equal decrements until it is cancelled at the end of the probationary period.

4. If the initial debt is prohibitive, the extra risk might be allowed for partly by means of Extra Premium

and partly by means of Contingent Debt.

5. It may be possible to arrange for the extra risk or part of the extra risk by deferring the bonuses. For example, if the proposal be under the With Profit Endowment Assurance plan, the proposer might, in a given case, be allowed to pay the ordinary rate on the understanding that the bonuses were only payable on survivance to the Endowment age, or,

again, a proposer following a hazardous occupation might be accepted at the ordinary rate or at a reduced Extra Premium on the understanding that the bonuses were only to accrue from and after the retirement of the proposer from the hazardous occupation.

Important Note:—Since this Paper was read the Finance Act, 1915, has been passed, and this Act imposes new conditions with regard to the Income Tax relief in respect of Insurance premiums. The reader is referred to Section 17 of the Act.

LICENALLY
OF THE
UNIVERSITY OF BLUNOSS

NAMES OF SUCCESSFUL CANDIDATES.

The following is a List of the Certificates which have been accepted from Students since the Report presented to the Conference at Newcastle-upon-Tyne, June, 1914:—

FIRE BRANCH,

Name, Office, and Town.	Chemistry (Elementary).	Electricity (Elementary).	Book-keeping.	Mathematics.	Geography.
Ash, Frederick H. I., County Fire,			C	C	
Northampton Atkinson, Francis C., Liverpool and London and Globe, Hull	C	•••	C	C	***
Babidge, Arthur C., London and Lancashire Fire, Leeds	C		··· _.	•••	
Bankes, Harold E. A., British Law Fire, Brighton	•••		C	C	C
Beedham, Ernest W., General Accident, Hull	C	C	C	C	
Billson, Maurice C., Legal, Nottingham Bilton, Harold L., Royal Exchange, Hull	Ċ.		C	C	C
Bingham, Cecil N., Royal Exchange,	C	C		C	
Bixby, Robert W., Scottish Union and				C	C
National, Ipswich Blackburn, Frank, Law Accident, Sheffield		C			•••
Bolton, Thomas H., A. W. Bain & Sons, Leeds	C			C	C
Boosie, John, Guardian, Liverpool Broadbent, Harold, Phœnix, Hull Brooks, Benjamin, North British and Mercantile, Hull	 C C	 C	C C 	 C C	
Brown, Herbert, North British and Mercantile, Newcastle-upon-Tyne			C	C	C
Butlin, Paul T., Liverpool and London and Globe, Northampton	•••	•••		C	
Chatterton, Carl E., Phœnix, Hull	C	C	\mathbf{c}	C	
Cocker, Richard M., Commercial Union, Bournemouth					Ċ.
Coggan, Alfred George, Alliance, London			C	C	C
Collard, William John, Employers' Liability, London			C	C	C
Cooper, William, Caledonian, Leeds	C	C	C		
Crane, Harry Harding, Atlas, London Cullington, Leslie, Commercial Union, Hull	C	Ö	Ü.	C	C

Fire Branch—continued.

Name, Office, and Town.	Chemistry (Elementary).	Electricity (Elementary).	Book-keeping.	Mathematics.	Geography.
Dann, Edward, Ocean, Belfast Doig, Alexander S., General Accident, Perth	G.	ö.	C	C	C
Eastwood, John C., British General, Leeds		C			
Edwards, John I.J., Alliance, Wrexham			C		
Finnis, Wm. Frank, Essex and Suffolk, Ipswich	C			C	C
Fisher, Wm. Thomas, Royal, Liverpool Flint, Herbert C., Norwich Union Fire, Leicester		•••	C	C	C
Franklin, Henry James, Alliance, Cork	C	🕴		C	C
Gray, John, Royal, Liverpool Green, Robert, Scottish Union and National, Ipswich	C		Ċ.	C	C
Henderson, Thomas, North British and Mercantile, Edinburgh	C			C	C
Henshaw, James, Royal, Hanley Hepworth, C. R., Century, Manchester Hill, Guy S., Guardian, Birmingham Hollins, John, Jun., Royal, Liverpool Hopps, Henry, Royal, Hull	 C	C C 	 C C	000000	 G
Houghton, Edward J., Essex and Suffolk, London Houston, Alexander W., Phœnix,	 C				C
Glasgow Hurst, Edward G., A. W. Bain & Sons, Leeds	C	C		C	C
Kay, George T., Edinburgh Life, Edin-		C	C		C
burgh Keogh, William, Norwich Union Fire, Leeds	C		C	C	
Kingan, Gilbert, London and Lanca- shire Fire, Liverpool	C	•••		C	C
Lister, Edward Wm. E., Fine Art and	C	C			C
General, Leeds Lotherington, H. A., Commercial Union, Hull	C	C		С	
M'Henry, Paul, Commercial Union, Belfast	C		C	C	
Mackereth, Gilbert, North British and Mercantile, Manchester	C	C			C
M'Kinty, Harry B., Caledonian, Aberdeen			C	С	C

Fire Branch—continued.

. Name, Office, and Town.	Chemistry (Elementary).	Electricity (Elementary).	Book-keeping.	Mathematics.	Geography.
Makins, Alfred J. W., Commercial			C	C	C
Union, London Manley, Joseph G., Royal, Hull Meyer, John Arthur, Royal, Liverpool	C	C	C	C	C.
Nichols, Donald W. J., Sun Fire,		C		C	C
Manchester Nield, George Cecil, Sun Fire, Bradford	C	C		C	
Parkhouse, Horace, Commercial Union, Exeter			C	C	С
Pattison, H. A., Alliance, Dublin Pettitt, Francis S., London and Lanca- shire Fire, Liverpool			Ö,	Ğ.	C
Rose, Donald Barclay, Essex and Suffolk, Ipswich			C	•••	С
Sanders, George E., Commercial Union,			C		
Ipswich Self, Alfred Charles, Century, Ipswich Smith, A. G. S., London Guarantee, Manchester			C	C	Ü.
Smith, Avard Forsyth, Royal, Liverpool				C	
Staley, Frederick A., Liverpool and London and Globe, London	C		•••	C	C
Steinberg, Douglas V., Royal, Liverpool				•••	C
Sullivan, Herbert C., Royal Exchange, Dublin			C	С	C
Taylor, Alfred, Sun Fire, Hull Tomlinson, Donovan A., North British and Mercantile, Hull	C C	Ċ	C C	C	
Troop, George E., Royal, Lincoln Tuppen, Alfred F., Royal Exchange, Ipswich		C		C U	Ċ.
Walker Robert I. P. Liverned	C			C	C
Walker, Robert L. R., Liverpool and London and Globe, Dundee West, Frank, London Assurance, Man-		***	C C	C	C
chester Wood, Miss Catherine W., North		•••	C	C	С
British and Mercantile, Edinburgh		•••			

LIFE BRANCH.

LIFE BRANCH.					
Name, Office, and Town.	Chemistry (Elementary).	Electricity (Flementary).	Book-keeping.	Mathematics.	Geography.
Ahier, Ernest, London Aldous, Sidney A. W., Norwich Union Life, Norwich			C	C	C
Cotton, Arthur, Refuge, Manchester			C	C	C
Hill, Frederick J., London and Lanca-	•••	C	C	C	
shire Life, Manchester Hill, Guy S., Guardian, Birmingham Kay, George T., Edinburgh Life, Edinburgh		C.		C	
Wallace, Alexander, Scottish Union	C			C	C
and National, Edinburgh Warren, William John, Royal, Ply-			C	C	C
mouth Woodcock, Philip E. H., Sun Life, Ipswich	•••	•••	C		
ACCIDENT BRANCH.					
Ahier, Ernest, London			C	C	C
Brown, Francis E., Yorkshire, Hull Burt, Frederick, London Guarantee, Glasgow	Ċ.	C	C	C	Ö.
Carter, E. Frank, Yorkshire, London			C	C	C
Dawson, Claude C., Norwich Union Fire, Norwich			C	C	C
Duke, J. Horace, Caledonian, Man- chester			C	C	C
Garwood, Harry F., Norwich Union Fire, Norwich			C	C	C
Geden, Edward, Alliance, London George, Charles Wm., Norwich Union Fire, Norwich	 C		C	C	C
Green, Leslie Wm., Ocean, Hull	C	C	C		
Hicks, Guido R., London Guarantee, Ipswich			C	C	C
Hill, Guy S., Guardian, Birmingham Hilton, Walter J., Alliance, London			Ö.	C	G.
Jefferies, Eric V., Liverpool and London and Globe, Liverpool			C		C
Johnson, Wm. Herbert, Royal, Man- chester			C	C	C

Accident Branch—continued.

Name, Office, and Town.	Chemistry (Elementary).	Electricity (Elementary).	Book-keeping.	Mathematics.	Geography.
Langton, Norman A., Ocean, Hull Lee, Cecil A., Yorkshire, Hull Lingwood, Harold R., Commercial Union, Ipswich	C C	C C	c c	C C C	 C
M'Donald, Alexander, Car and General, Hull	C	C	C	C	
Madgett, Wm. Stephen, Norwich			C	C	C
Union Fire, Norwich Moore, Reginald A., London and Midland, London	C	•••		C	C
Newton, Arthur T., London and Lan-			C	C	C
cashire Fire, Leeds Newton, Aynsley, Railway Passengers, Newcastle-upon-Tyne		C	C .	C	C
Park, Alexander, London and Lancashire Fire, Aberdeen			C	C	С
Patterson, Horace, Legal, Nottingham Paul, Wm. Sidney, Norwich Union			C C	C	C
Fire, Norwich Pfluger, Frank H., Yorkshire, Sheffield Philip, Alan, Ocean, Hull Poynton, Ernest, London and Lanca- shire Fire, Dublin	 C	 C	с с	CCC	с с
Rhodes, Robert, Yorkshire, Man-			C	C	C
chester Richardson, Herbert, London Guar- antee, Manchester			C	C	C
Shaw, William J., Ocean, Belfast Steel, Arthur B., Norwich Union Fire, Leeds			C	C	C
Verity, William L., Hull	C		C	C	
Weathers, Joseph, Royal, Sheffield Weeks, Lewis V., Norwich Union Fire, Norwich			C C	C	C

The following Candidates (in addition to those mentioned in previous Reports) have now completed the undernoted Parts:—

FIRE BRANCH,

PARTS I., II., AND III. :-Boosie, John, Guardian, Liverpool.

PARTS I. AND II. :--

Coggan, Alfred George, Alliance, London. Dann, Edward, Ocean, Belfast.

Henshaw, James, Royal, Hanley.

Kingan, Gilbert, London and Lancashire Fire, Liverpool.

Part I.:—

Atkinson, Francis C., Liverpool and London and Globe, Hull.

Babidge, Arthur C., London and Lancashire Fire, Leeds. Bankes, Harold E. A., British Law Fire, Brighton.

Beedham, Ernest W., General Accident, Hull.

Billson, Maurice C., Legal, Nottingham. Bilton, Harold L., Royal Exchange, Hull.

Bingham, Cecil N., Royal Exchange, Hull.
Bixby, Robert W., Scottish Union and National, Ipswich.
Bolton, Thomas H., A. W. Bain & Sons, Leeds.
Broadbent, Harold, Phænix, Hull.
Brooks, Benjamin, North British and Mercantile, Hull.

Brown, Herbert, North British and Mercantile, Newcastle-upon-Tyne.

Butlin, Paul T., Liverpool and London and Globe, Northampton.

Chatterton, Carl E., Phœnix, Hull.

Collard, William J., Employers' Liability, London. Cooper, William, Caledonian, Leeds. Crane, Harry Harding, Atlas, London.

Cullington, Leslie, Commercial Union, Hull. Doig, Alexander S., General Accident, Perth.

Edwards, John I. J., Alliance, Wrexham.

Finnis, William Frank, Essex and Suffolk, Ipswich, Fisher, William Thomas, Royal, Liverpool. Flint, Herbert C., Norwich Union Fire, Leicester.

Franklin, Henry James, Alliance Cork.

Gray, John, Royal, Liverpool. Henderson, Thomas, North British and Mercantile, Edinburgh.

Hepworth, Charles R., Century, Manchester.

Hill, Guy S., Guardian, Birmingham.

Hollins, John, Jun., Royal, Liverpool. Hopps, Henry, Royal, Hull.

Houghton, Edward J., Essex and Suffolk, London. Houston, Alexander W., Phœnix, Glasgow.

Hurst, Edward G., A. W. Bain & Sons, Leeds, Kay, George T., Edinburgh Life, Edinburgh.

Keogh, William, Norwich Union Fire, Leeds. Lister, Ernest W. E., Fine Art and General, Leeds. Lotherington, H. A., Commercial Union, Hull.

M'Henry, Paul, Commercial Union, Belfast.

Mackereth, Gilbert, North British and Mercantile, Manchester.

M'Kinty, Harry B., Caledonian, Aberdeen.
Makins, Alfred J. W., Commercial Union, London.
Manley, Joseph G., Royal, Hull.
Meyer, John Arthur, Royal, Liverpool.
Nichols, Donald W. J., Sun Fire, Manchester.

Nield, George Cecil, Sun Fire, Bradford.

Parkhouse, Horace, Commercial Union, Exeter. Pettitt, Francis S., London and Lancashire Fire, Liverpool. Smith, A. G. S., London Guarantee and Accident, Manchester.

Staley, Frederick A., Liverpool and London and Globe, London.

Sullivan, Herbert C., Royal Exchange, Dublin.

Taylor, Alfred, Sun Fire, Hull.
Tomlinson, Donovan A., North British and Mercantile, Hull.
Walker, Robert L. R., Liverpool and London and Globe, Dundee.
Wood, Miss Catherine W., North British and Mercantile, Edinburgh.

LIFE BRANCH.

Part I.:—

Ahier, Ernest, London.

Aldous, Sidney A. W., Norwich Union Life, Norwich.

Cotton, Arthur, Refuge, Manchester.

Hill, Frederick J., London and Lancashire Life, Manchester. Hill, Guy S., Guardian, Birmingham. Kay, George T., Edinburgh Life, Edinburgh.

Wallace, Alexander, Scottish Union and National, Edinburgh.

Warren, William John, Royal, Plymouth.

ACCIDENT BRANCH.

Parts I. and II.:-

Geden, Edward, Alliance, London.

Green, Leslie Wm., Ocean, Hull.

Hilton, Walter J., Alliance, London.

Moore, Reginald A., London and Midland, London. Newton, Arthur T., London and Lancashire Fire, Leeds. Shaw, William J., Ocean, Belfast.

PART I. :-

Ahier, Ernest, London.

Brown, Francis E., Yorkshire, Hull.

Burt, Frederick, London Guarantee and Accident, Glasgow.

Carter, E. Frank, Yorkshire, London.
Dawson, Claude C., Norwich Union Fire, Norwich.
Duke, J. Horace, Caledonian, Manchester.
Garwood, Harry F., Norwich Union Fire, Norwich.
George, Charles Wm., Norwich Union Fire, Norwich.
Hicks, Guido Roland, London Guarantee and Accident, Ipswich.

Hill, Guy S., Guardian, Birmingham.
Johnson, William Herbert, Royal, Manchester.
Langton, Norman A., Ocean, Hull.
Lee, Cecil A., Yorkshire, Hull.

Lingwood, Harold R., Commercial Union, Ipswich.

M'Donald, Alexander, Car and General, Hull.

Madgett, William Stephen, Norwich Union Fire, Norwich. Newton, Aynsley, Railway Passengers, Newcastle-upon-Tyne. Park, Alexander, London and Lancashire Fire, Aberdeen.

Patterson, Horace, Legal, Nottingham.

Paul, William Sidney, Norwich Union Fire, Norwich. Pfluger, Frank Hill, Yorkshire, Shetfield. Philip, Alan, Ocean, Hull.

Poynton, Ernest, London and Lancashire Fire, Dublin. Rhodes, Robert, Yorkshire, Manchester. Richardson, Herbert, London Guarantee and Accident, Manchester.

Steel, Arthur B., Norwich Union Fire, Leeds. Verity, William Lancelot, Hull.

Weathers, Joseph, Royal, Sheffield. Weeks, Lewis V, Norwich Union Fire, Norwich.

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